

MANUFACTURERS' RECORD.

A WEEKLY SOUTHERN INDUSTRIAL, RAILROAD AND FINANCIAL NEWSPAPER.

VOL. XXXIV. No. 16.
WEEKLY.

BALTIMORE, NOVEMBER 11, 1898.

\$4.00 A YEAR.
SINGLE COPIES, 10 CENTS.

Manufacturers' Record.

PUBLISHED EVERY FRIDAY BY THE
Manufacturers' Record Publishing Co.
RICHARD H. EDMONDS, President.
OFFICE: MANUFACTURERS' RECORD BUILDING,
BALTIMORE.

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SUBSCRIPTION, - - - \$4.00 a Year.
TO FOREIGN COUNTRIES, - - 26s. 6d. a Year.

BALTIMORE, NOVEMBER 11, 1898.

Two years must elapse before another general election. In those two years, in the absence of political excitement, the South may attend more strictly than ever to the development of its material interest.

When the system of round baling was first put on the market the Manufacturers' Record made a thorough investigation of it, assured itself that it could not become a monopoly to the injury of the South, and that the more vigorously its managers pushed their plans the more certain would become the early improvement in all cotton baling. This position is now abundantly demonstrated to have been correct. Never before has the question of baling commanded such general attention, and it may now be accepted that within a few years the whole cotton crop will be better baled. The success of the Lowry round-bale system shows that the Manufacturers' Record was also right in claiming that the original round bale of the American Cotton Co. could not become a monopoly. There is abundant room for both of these systems, and their rivalry will inure to the benefit of the whole South.

We would suggest to the Manufacturers' Record to get some expert opinions from Southern farmers on four-cent cotton. If Texas feels the pinch so terribly, what must the other planters, in less favorable sections, experience.—Augusta (Ga.) Chronicle.

The Manufacturers' Record does not need the testimony of farmers to convince it that four-cent cotton is not profitable. But will the Chronicle tell us wherein our position is wrong? Our position is this—that the Southern farmer should first raise his own food-stuffs and make cotton his surplus crop; that as there seems to be no possible way of reducing the South's cotton acreage, we might as well face the situation and see if any blessings can be found as a partial offset to low prices; that with two big crops in succession, aggregating probably 22,000,000 to 23,000,000 bales, low prices were inevitable; that these low prices will stimulate diversified agriculture and lessen the dependence upon cotton; and, finally, that the financial prosperity of Southern farmers depends upon such an industrial development as will create a home market for all the diversified products of the farm.

Aimed Against the South

Slowly but quite perceptibly certain representatives of the press of New England are adapting themselves to the policy, intensified by strictly local interests, that the labor legislation which has resulted so disastrously for New England cotton-mill interests should be extended to the South. One form of this contention is the demand for federal legislation, forcing the Southern manufacturers, willy-nilly, to adopt the New England standard. Another form which may be regarded as a specimen of philanthropy is framed in the hope that Southern legislative bodies may be cursed by the presence of the agitators which have demoralized New England industry. In line with this is an editorial in the Boston Journal of Commerce, which says:

The supposition that the present condition of labor in the South will long exist we believe is a mistaken one. The time is not far distant, in our opinion, when labor unions will be formed there and will be as strong at least as they are here, and the labor agitator will be heard in their legislatures advocating laws that will cut down their hours of labor and otherwise take away from corporations many of the advantages which they now possess over those in New England. To suppose that the South, with the same liability and labor laws which we have in New England, would have any advantage over us we do not think capable of successful demonstration, as the climate there is not naturally as favorable to manufacturing as it is in New England, and we do not believe the child is born who will live to see a cotton mill there operated as advantageously, with the same number of hands and the same number of hours, that a mill of the same size can be operated in the North.

The climatic argument is frazzled and attenuated by fifty years' ineffectual service. There is no occasion to discuss that point. We wish, however, to call attention to the demagogery in the allusion to the voice of the labor agitator advocating measures that will take away from corporations their alleged advantage over New England. While many of the New England traits are worthy of cultivation, and while they have been matched successfully in the South, the experience of the last generation or more should be a warning to the South against the adoption of the labor philanthropy of the strictly New England brand. For thirty years the South has been dealing with the negro race upon the New England principle of so-called education. The result has been an injury to the South. This experience should deter Southern States from following New England in legislation framed by labor agitators who are for labor as long as they can enjoy the benefits of receiving the votes of labor. There is another point in this connection which should be considered. It is illustrated in an interview with Mr. F. X. Ganter, a manufacturer of Baltimore. He said, referring to a strike which had been started at his factory:

Industries and enterprises of benefit to this city are being driven out of Baltimore by these labor troubles, caused by the susceptibility of a certain class of workingmen

who are led to strike by designing persons. I say now with full deliberation that this strike was started here with the connivance of a certain number of firms in the West that are desirous of knocking out Baltimore competition. It is an easy matter for these firms, through their agents, to start trouble here. From information in my possession I am fully convinced that the present strike was started in the interests of the Western firms to which I allude.

Many of the miners of West Virginia, who were implored to support a strike of Pennsylvania and Ohio miners a few months ago, were wise enough to realize that their participation in the strike would be not for their benefit, but for the benefit of the coal operators of Pennsylvania and Ohio. It is hoped that the employees of other Southern industries will be equally alert in checking the efforts of agitators to disrupt the harmonious relations of employers and employees. The best service they can render themselves is to silence the agitator the moment he attempts to open his mouth. Labor has been too long the cat's-paw of designing demagogues of a special class. Let the South not come under their baneful influence.

Directors of Industry.

At a recent meeting of the Society for the Promotion of Engineering Education, President J. B. Johnson, of Washington University, St. Louis, Mo., read a paper devoted to the argument that an essential condition of our future material prosperity is a higher industrial and commercial education. He took the ground that while the material prosperity of any country is not the ultimate highest good, it is the foundation of the happiness and of the progressive enlightenment of its people. He alluded to the growth of the commercial supremacy of England and the sudden rise of German competition. The cause of this competition he attributes to the fact that it is evident that the official direction of any industry today demands a very large amount of technical knowledge which cannot be learned at the bench or in the shops, and the capacity for production is limited only by the intelligence and foresight of a people. Having learned this, Germany set to work to prepare its people to accomplish all within their power. Schools were established to train up a class of men for the direction of all kinds of industrial works in which scientific knowledge is finding its embodiment and application. Drawing lessons from the experience of Germany, Professor Johnson said:

The most essential condition of our future material prosperity, therefore, is, as I conceive it, a specific scientific training for the directors of each and every kind of manufacturing and commercial activity. This is the burden of my address. The imperial and paternal government of Germany has worked out this problem to a most fruitful issue, but probably no other country could duplicate it. England has been trying for ten years to do so, but with very poor success. Instead of highly educating a few leaders and directors of industry and commerce, they are vainly trying, at an expense of some \$5,000,000 a year, to raise their entire

class of apprentices and clerks by a wholesale system of shallow night-school instruction. Apparently a duplication of the imperial German system is not to be thought of in this union of forty-five independent States. The great question for us to solve is how to obtain a corresponding specific training for our industrial officials.

The words of Professor Johnson should be carefully pondered, particularly in the South. There will be the future situs of the manufacturing industry of the country, and that industry will be strengthened by a wise care for the development of the country's commerce. It will not do to point to agricultural and mechanical colleges, to textile schools, as indications that the proper preparation is being made for the part which the South is to play. The point to be borne in mind is that the institutions are to be fostered by liberality on the part of taxpayers and intelligent direction of their operations if they are to have a practical bearing in the raising up of skilled directors of industrial and commercial undertakings.

To Encourage Industry.

Mr. Martin C. Calvin, a member of the Georgia legislature, has introduced a bill designed to overcome the only reasonable objections to the encouragement of industrial enterprises by the State. The contention has been raised that exemption of such undertakings by counties, cities or towns is unconstitutional. Mr. Calvin's bill proposes to amend the constitution so that the general assembly may authorize the authorities of any county, city or town to remit the taxes assessed for all county and municipal purposes on the buildings and the machinery used in factories for the spinning of thread and yarns and the weaving of cloth and other fabrics of cotton and wool and the lands on which the factories may be built for a period not exceeding ten years from the date of the incorporation of the company. This is a step in the right direction. Liberality on the part of communities in this direction cannot fail to have a beneficial effect upon the State as a whole. The matter is, under the provisions of the bill, relegated to the local authorities, as should be, thus preventing the possibility of injustice to industries already established. The bringing of new industries to a community will in the end broaden the basis of taxation in that community, increase its revenues and at the same time lighten the burdens of all.

An Unwise Measure.

There is a reform movement in the Georgia legislature, and one of its proposed measures is the abolition of the geological survey of the State. If this measure succeeds the State will be done an injury more than overbalancing the saving of the expense of the maintenance of the survey. Legislation of the past may be responsible for the failure of the survey to come up to expectations. The remedy for this is

not the abolition of the survey, but legislation to aid it. The bulletins recently issued by the survey are conclusive proof to everyone interested in the future of Georgia that the survey is engaged in work of practical value. The geological riches of Georgia are still to be developed. That development cannot be had unless the resources are known. The resources can be made known only through the work of the survey. Ex-Governor Wm. J. Northen is outspoken in his advocacy of the continuance of the survey. He has shown himself zealous in the development of Georgia, and his concluding words in discussing the status of the survey should carry great weight with the intelligence represented in the legislature of the State. He said:

To abolish the survey would be a calamity which I earnestly hope the second and better thought of the general assembly will not allow, as we need to continue it as one of the wisest and best methods of increasing tax values and thereby decreasing tax rates.

Good for Vicksburg.

The Vicksburg Herald devotes nearly two columns to a survey of the industries of its city. Among these it mentions two oil mills in operation and one in course of erection, one of them said to be the largest in the world, and employing hundreds of men; the plant of the Yazoo & Mississippi Valley Railroad, covering ten acres of ground and employing hundreds of men in planing mill, carpenter shop, carriage and coach departments, machine shops and blacksmith shops; two compresses; saw mills which have almost unlimited supply of white oak, ash, poplar, cottonwood, hickory, gum, cypress and walnut; a furniture factory, brick works, ice factory, boiler factory and foundry and bottling works. This is an excellent display, and the Herald has done Vicksburg great service in thus attracting attention to what has been done as a promise of what may be done. The space devoted to this article is of more value to Vicksburg than a page of political speeches or partisan editorial.

The result of the election in North Carolina is gratifying to every friend of that State and to every man who wishes to see reduced to its minimum one of the great menaces of Southern progress. The Old North State in its moderation of determination has presented a splendid advertisement of itself. That may be increased by legislative action nullifying the efforts of those still in power there to make votes by demagogery, if it be not possible just at present to inaugurate an entirely new regime.

Most Interesting Reading.

In a letter to the Manufacturers' Record Mr. Clarence Ellerbe, president of the Louisiana Central Construction Co., of Shreveport, La., writes:

"I find your journal most interesting reading. Some time note the fact that all manufacturers are exempt in Louisiana under our new constitution."

A dispatch from Jackson, Miss., states that arrangements are being made to begin work on the street-railroad system, already referred to in the Manufacturers' Record. It will also erect an electric-light plant, and the question of a sewerage system is now being agitated. Contract for a water supply has been let to a company. It is believed that these improvements will increase the city's population as well as its business interests.

TO RETAIN THE ISLANDS.

Mr. A. M. Gibson Writes in Favor of Territorial Expansion.

In a letter to the editor of the Manufacturers' Record Mr. A. M. Gibson, of London, England, takes strong grounds for maintaining on the part of the United States of control of the late Spanish possessions in the Western and Eastern Hemispheres. His letter derives its importance from the great ability and wide experience of the writer. A quarter of a century ago Mr. Gibson was one of the most powerful and effective men connected with the American press. As Washington correspondent of the New York Sun he contributed decisively to the political revolution of 1874-76. He was a close friend and associate of the late Samuel J. Tilden. For many years Mr. Gibson has been a citizen of the world, residing principally in London. There are few observers with a greater grasp of the facts of current history or a clearer comprehension of their political significance. His view point is necessarily English as well as American, which, under the circumstances, lends additional interest to his observations upon the subjects discussed. Mr. Gibson's letter is as follows:

"I am in receipt, on my return from Germany, of your favor of the 28th inst., enclosing advance proof-slip of an interview with the Hon. Chauncey F. Black, president of the National Association of Democratic Clubs.

"The subject of the interview, 'The Wisdom of National Expansion,' is of exceeding great interest to me, and I am delighted with most of the views expressed by my old friend. Mr. Black is of the old school democrats, and comes of a race of intellectual giants who in the past history of our country held high the banner of the true national democracy. During many years of close intimacy and political comradeship with Judge Black and his distinguished son, it was indeed rare that there was the slightest disagreement in our views on national politics. It is, therefore, with peculiar pleasure that I find that the friend of my youth, unlike so many who now claim to be democrats, is true to the old-fashioned principles of the party which expanded our domain from a ship along the Atlantic coast to continental dimensions.

"It is indeed discouraging to old-time democrats to be made to realize how far the would-be leaders of the party have strayed from the Jeffersonian principles and practice.

"It is, therefore, most pleasing to me to read the true ringing declarations of my old friend on the great national issue of our time, and most profoundly do I hope that these declarations express the convictions of the president of the National Association of Democratic Clubs, which, if I recollect aright, was founded to promote the true Jeffersonian principles of national democracy.

"I have said that I agree with most of Mr. Black's views. The exception is in respect of Cuba. As an advocate of the acquisition of Cuba during the whole of my life, as one who believes that Cuba is a strategic as well as economic necessity to the United States, I do not believe in half-way measures.

"I have never approved of the course pursued by our government in regard to Cuba. The straightforward way was to say to Spain: 'You have tried for years to pacify the island and have failed. Your failure is due to incapacity to provide good government. The result of your abortive efforts is unexampled suffering, the starvation of hundreds of thousands of helpless men, women and

children, and the United States have lost not only in disorganization of trade, but have been put to vast expense in endeavoring to maintain neutrality. The people of the United States will not suffer this sort of thing to continue any longer, and Spanish rule must cease.'

"There was no need to recognize a Cuban republic, nor to declare that annexation was not intended. All that was necessary was to say Spanish rule must cease, and that the United States would assume the responsibility of restoring order and just and humane government in the island.

"That responsibility cannot be evaded now. In the present condition of things the government cannot be turned over to one set of Cubans who we know will ill-treat and misgovern the rest of the inhabitants. It is the duty of the United States to establish a firm, honest, just rule in Cuba, and through a form of government as representative as possible under the circumstances. When that is done there should be a plebiscite whereby the people may determine whether they will become an integral part of the United States or whether they will, under the protection of that government, set up an independent one of their own. It is needless to say that the latter alternative will not be adopted, for the reason that the advantages of union will be far greater.

"It is quite true that the war was not undertaken for the conquest, but for the liberation of Cuba, i. e., to put an end to the anarchy which existed in consequence of Spain's failure to enforce its authority, and to rule honestly when and where its power was recognized. As a matter of course it follows that, having dispossessed the Spaniards, the United States must restore order throughout the island and must ensure to all the inhabitants thereof the benefits of just and honest government. When this is accomplished and the whole body of the people have an opportunity to express freely their will in respect to the future, there can be no doubt as to what their verdict will be.

"There are, I understand, people, respectable in numbers and deserving to be respected for their intelligence, who oppose the incorporation of Cuba in the Union because they believe the bulk of the Cubans are unfit for self-government. If they are right in their views, then so much more reason is there for not turning over the island to their mercy. The United States cannot escape the responsibility it has assumed of tranquillizing Cuba, which is only possible through the establishment of good provisional government. The length of time this must endure will depend entirely upon the development of governing capacity by the people of Cuba.

"I regret to see that there are Americans who contend that the people of the United States are not capable of providing just and honest government for the people of the territories from which we have driven the Spaniards. A people who can govern themselves are capable of governing others, and of preparing them for self-government. We have absorbed millions of foreigners totally unfitted by education and experience for self-government, and they and their descendants grew into good citizens. The population of Cuba and Porto Rico is less than a tenth of the number these islands can support. Who doubts that in two years Cuba and Porto Rico will become completely Americanized? With the Philippines it is different. The problem of government there is more difficult, but the solution of it must be undertaken. We cannot hand back any part of the Philippines to Spain, and we dare not

abandon the millions of islanders to themselves or to the rule of the Philipinos, who constitute but a fraction of the inhabitants of one island. The task of restoring order and of dealing with religious organizations which have practically ruled the islands for centuries will be a difficult one, and will require the exercise of a high order of statesmanship. But why should we be unequal to the undertaking?

"As to the dangers which some timid people imagine threaten our republic as a consequence of expansion, I confess that they seem to me idle fears. Imperialism is a misnomer. We will have no imperialism. However great our expansion may be, there will be nothing imperialistic about it.

"The expansion of the English-speaking people is inevitable. They have a mission to perform, and they cannot escape it."

Minerals of Missouri.

In his annual report, State Mine Inspector George E. Quinby, of Missouri, says:

"Missouri has already attained the first place in the production of lead and zinc, and the promise of still greater results from its enormous deposits is exceedingly bright. Capitalists outside of the State have learned of its merits, and are investing large sums of money in developed and undeveloped mineral lands.

"The production of both lead and zinc ores has wonderfully increased during the fiscal year ending June 30, 1898. The increase in the lead output was 6283 tons and that of zinc ore 46,520 tons. The prices received for lead ore, while they have been better than for the former year, yet, unlike zinc, they did not reach the high-water mark. Zinc-ore prices show a decided increase, especially during the latter part of the fiscal year; unfortunately for this report we do not get the benefit of the extra good prices which have obtained since the year closed, for since June 30 zinc ore has reached the highest price ever paid for the mineral, and prices have continued good to this writing.

"The many new uses for which zinc is employed of late increased the demand beyond all former experience, and it is but natural to expect that the demand will continue to grow. As to the maintenance of the extra good prices reached in the last few months, we are not so certain, yet in this connection there is to be considered the limited scope of country producing the ore. The fluctuations in prices have presented so wide a margin of difference within short periods of time as to indicate an uncertainty concerning the maintenance of high prices. The possibilities of the ore, however, present so many advantages as to give great promise for its future.

"The output of lead ore for the fiscal year just closed was 73,687 tons, and sold for the sum of \$3,011,055, while the output of zinc ore reached 139,668 tons, and sold for \$2,927,321. The total value of the two metals reached the magnificent sum of \$5,938,378, an increase over the former year of \$2,369,310, or 66 per cent."

The record of the past year is being maintained and enhanced this year. During the past week in the Joplin district the sales were as follows: Zinc, 9,732,970 pounds; lead, 823,780 pounds. The total coal production of the State for the year was 2,838,152 tons, an increase of 408,764 tons over last year. There were 377 mines in operation.

The shipments of coal from the George's Creek-Cumberland region since January 1 aggregate over 3,000,000 tons.

THIRTY-FIVE IRON TRAINS.

An Index of the Export Trade from the Birmingham District.

[Special Cor. Manufacturers' Record.]

Birmingham, Ala., November 8.

In the iron market there has been an importunate demand in a small way, and although the market is quoted quiet and strong on the basis of \$7.75 for No. 2 foundry, there have been frequent sales above that price. Some good-size orders have been tendered at prices that were acceptable, but the condition of the furnaces is yet such as to make them undesirable, and preference is given the small orders. No one wants to be caught short on deliveries, and for certain grades each keeps on the "qui vive" ready to snap up from each other any surplus that can be spared. As an illustration, one interest applied to another for 1000 tons of No. 2 foundry to enable them to complete contract, and had in return an offer to take 2000 tons. In the meantime the warrant yards are being constantly invaded by the gleaners in search of the grades desired. Every day but adds to the trouble to satisfy needs. One buyer of warrants said today: "For sixty days I have been in the market for warrants to fill in shortages, and have bought right along when on the basis of furnace prices. I am on the market today, but I can't find any offering, and it looks as if we will have to hustle the balance of this year if we would keep from defaulting on some of our contracts."

One party sent in orders for 7500 tons of iron, and was allotted 2500 tons. It was accepted on the principle that "a half loaf is better than no bread." Interests that have notified their agents that they were out of the market are in constant receipt of orders at quotations of market that they are compelled to decline. In the meantime shipments are increasing. Every car that can be utilized for the purpose is being impressed into service. The flat cars are boarded up on the sides and at the ends and loaded with iron. Even the gondola cars, heretofore exempt from such service, are made to meet the emergency. One line of railroad sent out in one day twenty solid trains of iron for export. Another day fifteen solid trains were sent out by that line. What better evidence could one desire of the growing importance of this trade than the statement of these facts. When to this is added the further fact that some of this iron was billed to Jerusalem, what further testimony is needed to convince one that from the Orient to the Occident Birmingham is the seller of iron in all the spoken languages of the world.

The export trade is in the same condition as the domestic trade. Iron is wanted, but it can't be had. That was thoroughly demonstrated when, during the past week, an order for 10,000 tons at a price temptingly above the price of domestic trade was declined because seller could not supply it. One interest, though practically out of the market, booked last month 27,000 tons. Of this amount, 17,000 tons were on export orders. The question soon will be, how can this demand be supplied unless we add to the number of furnaces in blast, all of which are turning out to full capacity? And if to this is added the almost certainty of the Nicaragua canal, nothing can stop the movement that will verify the predictions so freely made concerning this district.

The preliminary contract looking to the removal of the chair and furniture plant to this place has been signed, and that may be set down as secured. It may as well be stated that the wagon plant heretofore spoken of is the Florence Wagon

Co., whose annual output will be increased to 25,000 wagons. That enterprise will be acted on this week, and terms will be concluded securing that industry. Its value to us is apparent when you consider that the South buys annually about 500,000 wagons, every one of which should be made in the South. There will be no limit to the business of this new industry here save the efforts of its management. With everything entering into their manufacture practically right here at their door, the factory will have the maximum of facilities at the minimum of cost. Among those inquiring the past week was an Eastern pipe firm of large capital, who contemplate removal if prospects are favorable. New additions to our population are almost constant now, and it gives an added faith to those who have remained here "through good and evil" in the prosperity so near at hand. This increase of permanent residents indexes the confidence felt by others in the manifest destiny of the district.

The Birmingham Rolling Mills has secured the blooming mill erected at Fort Payne, Ala., some years ago during the boom period, and will operate it. This is but another indication of the broadening of our iron and steel interests. J. M. K.

Eastern Iron Markets.

[Special Cor. Manufacturers' Record.]

Philadelphia, Pa., November 9.

There is a general expectation of an active and profitable winter's business in iron and steel. Mills continue busy, and furnace managers report the prompt shipment of all iron produced into consuming channels. Prices do not weaken under the temporary lull in demand, because of the recognized fact that a large demand is not far in the distance. Those who are in touch with foundry and mill managers are strong in the belief that a large midwinter business will be done. Billets are a trifle lower, and must drop further, because buyers can afford to wait. Bar mills are as busy as ever, but many see the end of the rush, and consequently there has been some shaded quotations fluttering around during the past three or four days. Nails are weakening, and must drop five cents or more. Merchant steel is likely to weaken, notwithstanding mills are full of orders. Sheet is a trifle lower, and grows out of the offerings of some mills for January orders. Pipe mills are well filled up, but capacity is tremendous, and there is no telling what course prices will take before the winter is on.

Plate mills are prospering, of course. Some two or three have secured large fire-box orders. Prices are firm for all kinds of material, and probably will remain firm. While there are no great orders for structural material, there is a steady run of small orders that pay well. Engineers speak of the coming during the winter months of some very large orders for bridge and construction material. Tinplate wriggling still goes on in the direction of a combination. The locomotive, bridge and car works are crowded with work, and are excellent customers. The easy financial conditions are favorable to the prosperous incubation of several schemes of immense proportions in connection with the establishment of manufacturing plants.

If there is one thing above another that later drift is emphasizing, it is that iron and steel makers' profits will be narrow enough to encourage the spirit of combination, or at least of the building up of associations to protect common interests.

The convention of the Tennessee River Improvement Association will take place at Chattanooga on November 23.

A Steel-Rod Mill for Birmingham.

The Alabama Steel & Wire Co., the organization of which was lately reported in the Manufacturers' Record, has awarded contract for a new rod mill, to be built close to the steel plant now under construction at Ensley, near Birmingham. The company has a capital stock of \$2,000,000. Its officers will be: E. T. Schuler, of Chicago, president; C. E. Robinson, of Joliet, Ill., vice-president and general manager, and G. H. Schuler, of Cleveland, secretary and treasurer. The new president was treasurer of the Consolidated Steel & Wire Co., and was elected general manager of the American Steel & Wire Co., but did not accept the position. G. H. Schuler was manager of the Consolidated Steel & Wire Co.'s Cleveland mill, and later was in charge of the five other mills of the American Steel & Wire Co., but resigned this position a short while ago. The Cleveland Iron Trade Review, in giving an account of the letting of the contract for this plant, says:

"The new rod mill at Ensley, on which work will begin at once, will have an output of 600 tons per day, and the plans are such that, with a slight change, the capacity can be increased to 900 tons in twenty-four hours. There will be several new features in the construction and equipment. Hot billets will be furnished direct from the adjoining steel works, and it need hardly be said that under the advantageous arrangement made with the steel mill, with the low-priced fuel from mines close by and the cheaper labor from the Birmingham district, added to the economies secured by the most advanced equipment, a low cost of manufacture will be obtained, an advantage amounting to at least \$2 per ton, speaking roundly.

"It is not expected the new plant will interfere with the wire and nail mill already operated in this country. Its chief field is the export trade, and the possibilities of low through freights by nearby tidewater points have been well demonstrated in connection with the export trade in pig iron from the Alabama district. Heretofore rod mills have paid \$2 to \$3 per ton more for basic than for Bessemer billets. While nothing official is given out on the subject, it may be reckoned that the soft and readily-workable steel of the basic furnaces at Ensley will be available at a figure more than wiping out the differential, and that the price at which the Alabama rods, wire and wire nails can be laid down at European ports and in Asiatic markets is a figure not reached by English and Continental makers. It is planned to start the new mill in June, 1899."

Industries as Town-Makers.

As an indication of what industries do in town-making, the city of Roanoke Rapids may be cited. The Littleton (N. C.) Reporter, speaking of its progress, says: "Where Roanoke Rapids, a town of 1200 inhabitants, is now situated, was less than ten years ago cultivated and barren lands. The opening up of cotton mills in that time has made a beautiful and thrifty town. Demands for the goods of the two mills now in operation is increasing and the capacity of the mills will be doubled in two years; this increase of mill machinery will, of course, double the population of the now already crowded town. We say 'crowded town' because there is not a vacant cottage in the place. It is said the cottages are the best of any in the South for operatives. What has been done at Roanoke Rapids is being done in many places in this State and could have been done here with profit to investors and the town."

RAILROAD NEWS.

[A complete record of all new railroad building in the South will be found in the Construction Department.]

Jacksonville to Valdosta.

Work is rapidly progressing upon the extension of the Atlantic, Valdosta & Western Railroad. This line has already been built a considerable distance through Southern Georgia, and the company has determined to extend to Jacksonville, Fla., on the east. In a letter to the Manufacturers' Record Mr. E. E. Long, of Haylow, Ga., writes as follows: "This line has now seventy-one miles of road completed and in operation. Contracts have been let and the line is now being constructed from Haylow, Ga., to Valdosta, Ga., a distance of twenty-two miles, and from Crawford, Fla., to Jacksonville, Fla., a distance of seventeen miles. We are exerting every energy to have it completed from Valdosta to Jacksonville by January 1." At Valdosta it will connect with the Georgia Southern & Florida, also the Plant system, and at Jacksonville with the Florida Central & Peninsular and the Florida East Coast Line.

The Atlantic, Valdosta & Western Company was incorporated in 1897, the organization was completed in January of this year and work began immediately on the Jacksonville division of the line, it being the intention of the company to build as far west as Birmingham. The road is being built by Walton Ferguson, of New York, under a contract with the railway company to build and equip the line from Valdosta to Jacksonville. G. S. Baxter & Co., of Haylow, Ga., are acting as agents in the construction of the road. Baxter & Co., having large timber interests in Clinch and Echols counties, Georgia, had formerly built a private road through their timber lands in Echols and Clinch counties to a point near the Suwanee river for the development of their timber interests, which have been absorbed by the railway company, and was really the inception of the enterprise. The territory through which the line runs is for something over seventy-five miles west of the St. Mary's river a virgin yellow-pine forest of perhaps as fine timber as can be found in the two States, and will furnish a very large tonnage of lumber, naval stores and yellow-pine products for twenty-five years.

The road is being laid throughout with 70-pound steel rails. The road from Jacksonville to Valdosta is practically an air line, with a maximum grade on east-bound tonnage of one-half per cent, and a maximum grade on westbound tonnage of nine-tenths per cent. In one place only. The alignment of the road is very fine, having one straight stretch of thirty-five miles. The road was located and has been built upon the survey of F. W. Long, chief engineer of the company.

The entire equipment of the road is all of most modern type. The rolling stock consists of 60,000 to 80,000-pound capacity flat cars, and of 60,000-pound capacity ventilated box cars. The motive power consists at present of two new Baldwin 10-wheel, 18x24 cylinder freight engines, and two new Baldwin eight-wheel, American type, 100-ton, high-pressure, 18x26 cylinder, 72-inch driver passenger engines.

Illinois Central Abroad.

In an exceedingly favorable resume of the progress of the Illinois Central Railway the London Statist says:

"How much longer these betterment outlays will continue cannot be determined. The road and rolling stock, however, are not yet in the high state of per-

fection in which the directors desire it to be, and further works are proposed in the current year. The most important of these is the reduction of grade between Fulton and Memphis from a maximum of 60 feet to one of 26.4 feet to the mile, which practically conforms to the ruling grades across the prairies of Illinois. This work, which will not be completed until towards the end of next year, will cost, approximately, \$1,200,000. When this is done the company will possess a through route from Chicago to New Orleans—a distance of, approximately, 924 miles—having nowhere, except for ninety-nine miles in the neighborhood of the Ohio river, a grade exceeding 26.4 feet to the mile against south-bound traffic. The advantages of such a route will not be obtained for at least eighteen months; still, when it is completed the company will be able to run still heavier trains at higher speed, and to effect important economies in working. But improvements in one direction necessitate improvements in others, and the standard rail has been increased in weight from seventy-five to eighty-five pounds per yard on portions of the system, the standard strength of trestles augmented by 30 per cent., the standard width of embankments for single track increased from eighteen to twenty feet, the capacity of coal cars raised from thirty to forty tons and the maximum weight of locomotives from seventy-four to seventy-nine tons. To effect all these improvements much money will, of course, be required, but when they are completed the company should be able to attract a very large traffic, and to compete still more successfully for through business. With the good times which appear to have now arrived, the company should continue to have very large earnings, and after paying the 5 per cent. dividends should be able to devote exceptionally large sums to improvements, thus hastening the time when it will be in a position to pay a higher dividend in good and bad years."

Another Virginia Project.

Reports from Winchester and Strasburg, Va., indicate that another east and west railroad line is being promoted. For several weeks past a corps of surveyors have been engaged in laying out a route terminating at Strasburg and extending, it is reported, to Bismark, W. Va., which is located on the West Virginia Central Railroad in Grant county. The road would form a direct connection between the coal fields reached by the West Virginia Central and the Southern system at Strasburg, and would be fifty miles long. In the last issue of the Manufacturers' Record reference was made to what is known as the Bismark & Potomac Valley Railroad, chartered in West Virginia to build from Davis to the Virginia State line. It is believed to be the company which will promote the West Virginia section of the railroad. It is composed principally of Philadelphia parties, among them Samuel Mason, Henry W. Stokes and B. Gilpin Smith. C. M. Bolton is engineer in charge of the surveys.

Advantages of Sabine Pass.

One of the most important railroad centers in the country promises to be the city of Sabine Pass, Texas, where the Southern Pacific system, realizing its advantages, has already invested a large sum in terminals. Within the last few months several companies have been chartered to construct lines from different portions of Texas and Indian Territory to this harbor. The Sabine Pass & Northwestern calculates to build at least 300 miles of line. It is an open secret that the Gulf, Beaumont & Kansas City

has increased its capital for the express purpose of having a terminal at this point, while it is reported on good authority that several trunk lines are also preparing to reach the same place. The St. Louis Southwestern, which is one of the largest systems in the United States, is mentioned among these corporations.

The deep-water channel now being completed to this point is one of the reasons why this is the objective point of so many projects. It is also well located geographically, not only for domestic, but foreign commerce with Europe and the West Indies, Central and South America. With the completion of the Nicaragua canal, Sabine Pass will be one of the nearest seaports to the West and Northwest, and will have many advantages over New York and Boston in shipping products by water to the Pacific coast and Asiatic markets.

Realizing the advantages of the location, capitalists have already had their attention attracted to it, and investments of various kinds are being made, while the population in this locality is rapidly increasing.

Within the next three or four years there is every reason to believe that the site in question will have developed into one of the most important terminal shipping points on the Atlantic and Gulf coasts, and that it will be the terminals of several extensive railroad systems, which will bring it in close connection with the principal cities of Texas, as well as St. Louis, Kansas City and even Chicago.

Another Seaboard Plan.

Another new plan of the Seaboard Air Line to improve the agricultural conditions in the States traversed by this system has been made public. Briefly stated, it is to induce young men in the Southern States to reside for a time on farms in the North and study the methods used in this portion of the country. According to a statement of Mr. John T. Patrick, the company's chief industrial agent, the young men are to go on the farms of the Northern farmers and to receive their board, washing and a nominal amount to pay for extras, and to work just the same as any of the other employees. "In other words," says Mr. Patrick, "they will get a real good practical instruction in farming, better than they would possibly get at any agricultural college, and instead of having to pay out money for the instruction, they get enough to pay expenses."

Norfolk & Western Earnings.

In a recent issue the Wall Street Journal, of New York, commenting upon the earnings of the Norfolk & Western Railroad, says: "For the three months ending September 30 Norfolk & Western has earned very nearly as much net as it earned in the corresponding quarter of last year. In connection with this it is important to remember that it was in the six months ending December 31 a year ago that Norfolk & Western made the bulk of its net gain over the previous year. Consequently in the three months the company has made comparison with heavy earnings last year, and its results are all the more satisfactory."

Galveston to Kansas City.

Relative to the report that the Galveston, La Porte & Houston Railroad may be extended further north by its present owners, Mr. L. J. Smith, of Kansas City, Mo., informs the Manufacturers' Record that this statement is true. The sale of the railroad has been confirmed to himself and associates. He further states that no terminus for the extension has as yet been decided upon, but it is under-

stood that the road is to form the Galveston end of the system, which will eventually terminate at Kansas City.

Doubled Its Capital.

At a meeting of the stockholders of the Atlantic Coast Line Co., of Connecticut, held Tuesday at Bridgeport, Conn., a resolution was adopted to increase the capital stock from \$5,000,000 to \$10,000,000. The additional stock will be distributed among the stockholders as a stock dividend. This dividend of 100 per cent. represents the accumulated profits and increased valuation of the assets of the company. This company controls the Atlantic Coast Line system in the South.

St. Louis to Mexico.

It is announced that the Mexican National and the International & Great Northern companies have made arrangements by which a solid train will be run between St. Louis and the City of Mexico this winter, to begin December 4. The train will be known as the "Mexican and St. Louis Limited." The speed will shorten the present time between the two cities eleven hours and twenty-five minutes.

Georgia's Railroads.

According to the annual report of the Railroad Commission of Georgia, there are 5475 miles of road in this State. This is an increase of 100 miles over the previous year. Georgia's railroads earned in the year ending June 30 last, \$19,046,983. The average gross earnings per mile were \$3517. The average operating expenses per mile were \$2492, while the net earnings were \$1025 per mile.

Large Order for Cars.

It is announced that the Baltimore & Ohio Railroad Co. has ordered 2000 additional cars, which will be built by the Missouri Car & Foundry Co., of St. Louis. It is stated that the cars are needed to meet the increased business of the company. They will represent an outlay of fully \$1,000,000.

Railroad Notes.

Mr. D. N. Goodwyn has been appointed assistant general freight agent for the Louisville & Nashville Railroad.

Charles L. Smith has been appointed traveling freight agent, and C. H. Chapell Northwest freight agent of the Seaboard Air Line.

L. T. Fuller, of Houston, Texas, has purchased the Houston Belt & Magnolia Park Railroad, with the rolling stock. The road is about four miles long.

W. E. Green has been appointed assistant general superintendent of the Kansas City, Pittsburg & Gulf Railroad, with headquarters at Texarkana, Texas.

William C. Brown has been appointed New England agent of the Atlantic Coast Dispatch and the Richmond & Danville Dispatch freight lines, with office at Boston.

As an indication of the coal freight business in Tennessee and other Southern States, the Knoxville & Ohio Railroad Co. recently moved 300 loaded cars over its line in one day.

Mr. M. F. Smith, general agent at Galveston for the Galveston, La Porte & Houston Railroad, has resigned his position to accept one with the Mallory Steamship Co. as traveling agent.

In a letter to the Manufacturers' Record Mr. Morgan Jones, vice-president of the Fort Worth & Denver City Railroad, denies the report that this company will extend its line into Indian Territory.

W. A. Himes, of New Oxford, Pa.,

has been elected president of the Emmittsburg Railroad Co.; Rev. Wm. L. O'Hara has been chosen vice-president; J. B. Brawner, secretary, and Wm. S. Blair, treasurer.

It is stated that a Boston syndicate has obtained control of the Dallas Rapid Transit Electric Railway of Dallas, Texas. The road is eleven miles long. It is understood that T. Jefferson Coolidge, of Boston, is a member of the syndicate.

A New York dispatch is to the effect that the bondholders in that city who have opposed the sale of the Cape Fear & Yadkin Valley Railroad as a whole have withdrawn their objection, and that it will soon be sold, as desired by the Baltimore and Southern bondholders.

The Richmond Locomotive and Machine Works is completing six engines for the Georgia & Alabama Railroad. Three will be used in through fast freight service between Montgomery and Savannah, two in passenger service and one as a shifting engine. The rapidly-increasing traffic of the Georgia & Alabama makes it imperative that these new engines be delivered as soon as possible.

Salt of Louisiana.

Four big mines are now in operation in the salt section of Louisiana. In an interview in New Orleans Mr. D. Avery, Jr., a representative of the Iberia salt mines, said:

"We are about closing arrangements to put in an entirely new plant on the island. The output of the present mines is about 200 tons per day. The new mines will have an output of 500 tons per day. The salt mines of Avery Island and all the islands of that section are inexhaustible. The world's supply can be taken from them, and no doubt will be, for the mining of salt in other sections is much costlier. In this State it is dug up pure and clear from the earth and placed on the cars for shipment. Thus it is pure and healthful."

A Trustee's Hand Book. By Augustus Peabody Loring, of the Boston bar. Publishers, Little, Brown & Co., Boston, Mass. Price \$1.50.

This is a practical book on a practical subject. When only an occasional great estate was left in trust the technical law books on the subject were perhaps a sufficient guide, but trustees and beneficiaries are increasing in numbers every year, and both are anxious to know their duties, liabilities and privileges. Mr. Loring has had great experience in connection with large trusts, and speaking thus with authority, he treats the subject systematically and practically. The work is general, and not local, in its application.

Merchants of Louisville, Ky., have organized what is termed the Merchants and Manufacturers' Association of that city for the purpose of enlarging the market of Louisville. The association has elected the following officers: William Thalheimer, president; Douglas Barclay, vice-president; J. J. Telford, secretary and treasurer, and the following executive committee: W. R. Belknap, chairman; S. O. Hilpp and W. J. Baird.

The women of Chattanooga, Tenn., are forming an organization of an industrial league for the encouragement of home industries. At present their campaign is taking the direction of a preference for Chattanooga-made goods.

A correspondent of the Manufacturers' Record at Waynesville, N. C., writes that an excellent opportunity is offered in that town for the establishment of a plumbing and sheet-iron business.

COMMERCE.

This department is devoted to a record of the rapidly developing commerce of Southern ports.

Raw and Manufactured Cotton for Asia

The presence of Japanese cotton-buyers at New Orleans and Galveston has resulted in representatives of the local press securing some very favorable opinions from them as to Southern cotton shipments. Mr. Kenzo Jawhara, of the firm of Mitzu & Co., in a recent interview said:

"We have been buying large lots of cotton in Texas and shipping it to Japan via San Francisco, and we had an idea that there might be some advantages in handling it from this port. We have made one or two trial shipments from New Orleans, and found it fairly satisfactory, though there was some complaint on the score of its condition upon reaching Japan. This damage might not be due to handling here. It seems rather to be country damage, for I find the facilities here fairly good, though not what they should be. The condition of all cotton shipped from Gulf States indicates a bit of carelessness in handling. One of the great obstacles we have to importing through here is the lack of ocean tonnage. Ships seldom sail from here to Japan. From San Francisco or from New York we find a different situation, there being a regular line of steamers. That is just what New Orleans ought to have to Japan, for there is a world of traffic coming into this country from Japan which could just as easily come through this port. Then we would be able to turn more business here. But, as I say, we are getting more interested in New Orleans. We realize that some day, when the great canal is cut, we will be forced to come here. Therefore, we are looking forward to the future. Our firm has bought some 200,000 bales of cotton in the South during the past season. This is the showing against only about 65,000 last season, thus making quite a good record for the increase of our traffic relations with your country."

A dispatch from Cordova, Ala., states that the Indian Head Cotton Mills, at Cordova, are preparing to make another shipment of their sheeting. This shipment will consist of ten full cars of sheeting, and will go direct to China via California.

Southern and Cuban Trade.

Mr. Creston Herbert, of Key West, Fla., who is identified with the tobacco trade both in Florida and Cuba, has been expressing his views on the present situation of the tobacco industry in the South. In a recent interview he said:

"The trade in Key West was never better. There is quite an amount of the leaf put on the market by Florida itself, and for several years the amount has steadily increased. The plantation owners of the State have found that it makes a profitable investment. In the near future the Florida manufacture will have attained a reputation in the tobacco world."

"The general business of the State is in a fair condition. We anticipate a certain revival of trade in all branches when the Cuban affairs assume the least semblance of a settlement. In fact, we look forward to not only one revival, but two; that is, when the craze for Cuban development and investment reaches its height, and when the solemn truth is forced home to these optimistic creatures of the West and East. Cuba is no place for the average citizen, and will not be for some time to come. What the country wants is capital, and lots of it; then, I believe, money

can be made. But the average man who enters Cuba with limited means, or even with a fair backing, will be squeezed out by these big fellows, and either be compelled to work on a par with the negroes and half-caste Cubans, or return to the States. Therefore, as Florida stands as a sort of a gang-plank to the Indies and the Bermudas, trade will be thrown our way by the immense volume of speculators entering Cuba, and also by the return of the deluded ones."

Large Cargo Carrier.

The steamship *Bengalia*, which is nearly of the same size as the *Brazilia*, recently arrived at Baltimore on her first trip across the Atlantic. The two vessels are the largest freight carriers which have ever entered the harbor of Baltimore. Both are of the fleet of the Hamburg-American Packet Co. The *Bengalia* is 485 feet in length; beam, 57 feet; depth of hold to main deck, 36 feet; gross register, 7689.87 tons; net register, 4948.51 tons. The dead weight of the cargo she carries is about 11,000 tons, and the total measurement of her three decks and lower hold is 7981 tons. The latter figure is independent of the upper and shelter decks, which are fitted up to carry 823 head of cattle. She is what is known as the double-bottomed type, having water tanks for ballast between the bottoms, with a capacity of 1400 tons. Her lower hold is also fitted with a water ballast tank of 1000 tons capacity. Her engines are 4000 horse-power. She is fitted with four masts, nine hatches, thirty-four cargo booms, thirteen steam winches, and can load to a maximum depth of twenty-nine feet. She will run between Hamburg and North American ports.

More Demand for Southern Coal.

The Southern export coal trade promises to be considerably increased in the near future by English orders, although, as readers of the *Manufacturers' Record* are aware, a large tonnage has already gone from Hampton Roads ports to British coaling points. A Philadelphia dispatch says: "In response to hurried cablegrams from London, ship-brokers engaged in the West India trade are searching for tonnage suitable to transport coal from Philadelphia and Newport News to points where it will be most convenient for English war craft to fill their bunkers. Sailing vessels, from 1500 to 2000 tons carrying capacity, are particularly in demand. The first shipments are to be sent to Kingston, to be followed by vessels for Bermuda, St. Lucia and Demerara, which are the principal ports in the West Indies subject to Great Britain. It is also proposed to discharge a part of the purchase at St. Thomas, a Danish island, where hulks will be used."

Exports of Mobile.

The exports from Mobile in the month of October amounted to \$1,355,979, as against \$591,234 in October, 1897. The shipments included cotton, cottonseed meal, flour, grain, pig iron, lumber, etc. Since September 1 ten cargoes were cleared from Mobile for Havana, Cuba. The Snyder Havana Steamship Line, finding its present steamers inadequate for the business offered, has closed for two extra steamers of 2400 tons each. On October 31 the steamer *Arecuna*, of the regular Mexican line, sailed with a cargo valued at \$18,000.

Merchants & Miners' Steamers.

The Merchants & Miners' Transportation Co., of Baltimore, has decided to name its two steamships now being built at Wilmington, Del., by the Harlan &

Hollingsworth Co., the *Kershaw* and *Nantucket*, thus continuing a practice inaugurated some years ago of naming its vessels in honor of towns and counties within the territory served by the company, and also beginning the name of each one in alphabetical rotation. Both vessels were contracted for this year, and one, it is stated, will be ready for delivery on the first of April and the other on the first of May next year, in accordance with the terms of the contract. They are to be companion boats, each being of about 3000 tons gross, 274 feet long, 42 feet beam and 26 feet depth of hold.

Naval Stores at Pensacola.

The Gulf Naval Stores Co., it is stated, has decided to erect its mill at Pensacola, Fla. According to a dispatch from that city it is believed that the naval stores business will steadily increase in the future. It is estimated that the next season will show receipts of fully 50,000 casks of spirits and 150,000 barrels of rosin. In addition to the Gulf Naval Stores Co., the S. P. Shotton Company does a large business at Pensacola, and it is believed that it will handle fully 25,000 casks of spirits from that territory this season.

New Route to Cuba.

It is stated that the Florida East Coast Railroad Co., in connection with the Cincinnati, New Orleans & Texas Pacific, has formed a route between the Northwest and Cuba. It is stated that the run from Cincinnati to Jacksonville will be made in twenty-four hours. At Jacksonville connection will be made with the Florida East Coast line for Miami, where the company's steamer will be taken to Havana, no stops being made at Key West. The entire journey will consume only seventy-four hours of time.

Trade With Porto Rico.

The representatives of Charleston business men who have visited Porto Rico have made a report to Mayor Smyth, of that city. They state that Charleston has opportunities for extending its trade to the island, and that it should furnish the greater part of the lumber and provisions shipped to the new colony. The representatives visited a number of cities on the island, and included in their report an outline of the resources, the character of its population, etc.

Mobile Cattle Exports.

According to reports from Mobile, Ala., within the last month 5000 head of cattle have been shipped from that city to Cuba, while several cargoes have already been engaged for shipment in the near future. A number of steamships have been especially fitted for the trade in live stock, which it is expected will continue for the next year at least. The steamships bring return cargoes consisting principally of fruit.

A New Steamship.

The steamship *Florida*, the latest addition to the fleet of the United Steamship Co., plying between New Orleans and Denmark, has recently arrived on this side. The *Florida* is 380 feet long and forty-eight feet beam. She has an indicated horse-power of 1500, and her net tonnage is 2833. She has a capacity for 6200 tons of cargo. This is the *Florida's* first trip.

Jottings at the Ports.

Messrs. Charles Reeder & Sons, of Baltimore, have secured the contract for constructing the steamer to run between Baltimore and Queenstown, Md., in connection with the Queen Anne's Railroad.

The boat has already been described in the *Manufacturers' Record*.

Representatives of English firms have recently purchased 270,000 pounds of Kentucky tobacco for shipment abroad. The amount paid was \$25,000.

H. S. Donald, of Mobile, Ala., has recently visited Sabine Pass, Texas, with the view of making arrangements for a steamship line between that port and Europe.

Arrangements have been about completed for the new steamship service to be operated by the Florida East Coast Steamship Co. between Miami and Havana direct. J. P. Beckwith, traffic manager of the company, announces that the service will begin December 1.

Recent exports of steel and railroad material from Sparrow's Point include 2000 tons for East India; also a cargo for Melbourne, Australia. The Maryland Steel Co. has also secured an order for 3000 tons from the Great Northern Railroad Co., of Ireland, in competition with British makers.

On one day recently forty-six vessels were in Galveston harbor loading cargoes for foreign and domestic ports. They included sixteen steamers loading for ports in Great Britain, nine for Havre and other French cities and seventeen for ports in Continental Europe. In addition, there were two steamers loading for domestic ports.

According to a dispatch from Charleston, W. Va., the Cotton Export & Import Co., of New York city, has been granted a charter by the secretary of state to import and export goods between the United States and foreign countries. Capital subscribed is \$100,000. The Pan-American Commercial Co., of New York, has been chartered to introduce into foreign countries American machinery.

The Atlantic Transport Co., of Baltimore, it is announced, has made arrangements to acquire four additional vessels for its service between New York and Europe. The vessels will be 400 feet long, 50 feet beam, of 4000 tons register, and have passenger as well as freight accommodations. The same company has decided to construct a new tug for use in the vicinity of Baltimore. The vessel will be 126 feet long and 25 feet beam.

According to a dispatch from Mobile, Ala., arrangements are being made to renew the exports of grain from that city. President E. L. Russell, of the Mobile & Ohio, is quoted as follows: "The Mobile & Ohio did a considerable export business in grain last fall, winter and spring, through the port of Mobile. This business was not driven away by reason of competition of the Atlantic seaports, but it was driven away from the Gulf ports on account of the war. The Mobile & Ohio, having spent considerable money in the construction of wharves and other facilities for doing an export business through the port of Mobile, its management thought it wise to try to induce those who had heretofore patronized this port to return and again engage in the export business through this port."

The articles published by Mr. W. L. Saunders, of New York, in his journal, "Compressed Air," have been gathered in a handy book form and published under the title, "Compressed Air Production, or the Theory and Practice of Air Compression." The articles are prepared from a practical standpoint, and appeal to practical men. The reason for republication in book form is that the demand for back numbers of the publication in which they first appeared has been so great that the supply has been exhausted.

TEXTILES.

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the Manufacturers' Record. We shall be glad to have such matter at all times, and also to have any general discussion relating to cotton matters.

ALL PROCESS MILLS.

Improvements in the Methods of Handling Cotton.

[Special Cor. Manufacturers' Record.]
Charlotte, N. C., November 4.

Improvements in the handling of cotton, from the field to the finished product from the mill, continue to be made in the South, and an advance step in this direction has just been made by the D. A. Tompkins Company, of Charlotte. This company has perfected plans and arrangements for the construction of complete plants to work seed cotton as a raw material. It is proposed to construct plants in which the cotton will be ginned, the seed crushed for oil, meal and hulls, and the cotton spun and woven. The advantages of plants of this character throughout the South will be apparent at a glance. The oil machinery and water-wheels for these plants will be made by the Stilwell-Bierce & Smith-Vaile Co., of Dayton, Ohio; the cotton-mill machinery by the Mason Machine Works, of Taunton, Mass., and the remainder by the D. A. Tompkins Company, of Charlotte. This arrangement makes a very strong combination, and by it the cost of manufacture in the South, it is thought, will be still further reduced.

Political campaigns, as a rule, affect all classes of business, but the cotton mills of this section experienced but very little depression from this source. They have had orders ahead to work on, but with the passing of the election they are prepared for a flood-tide business. At no time in the history of the South has the cotton-manufacturing interests presented a brighter outlook.

The electric plant being installed at the Catholic College at Belmont is one of the most complete in this section. It includes a power-house and the lighting of the church, college, monastery and grounds. The capacity of the plant is 600 lights. It is being placed by the D. A. Tompkins Company.

Making Lowry Bales.

The Augusta Chronicle publishes an elaborate description of the plant which has been established there for the manufacture of the Lowry cotton bale. After describing the process, speed of baling, the simplicity of wrapping and the ease of sampling, the paper says:

"The operating power required for this press does not exceed ten to twelve horsepower. At other compresses 450 horsepower is used. The party went from the Lowry press to the old-fashioned gin box. The simplicity of the former over the other was striking, and no higher degree of scientific knowledge was required for one than for the other. It was a matter worthy of note that the storehouse for the seed cotton, the gins and the press were all one and the same. You did not have to haul the cotton first to the storehouse, then to the gin and then to the press. One handling can accomplish what has previously been done by three. For example, while the party were at the press a wagon drove up, its cotton was unloaded, ginned, packed and pressed in

almost fifteen minutes. The Lowry bale presses the lint cotton just as it leaves the gin by excluding the air to an extent which was almost thought to be impossible. The density of the Lowry bale when it leaves the machine varies from forty-seven to fifty pounds."

\$100,000 Yarn Mill for Lynchburg, Va.

The movement at Lynchburg, Va., for the erection of a yarn mill, to which reference was made last week, has resulted in the organization of a company with a capital stock of \$100,000, all of which amount is said to be subscribed. A site will be selected at once and arrangements completed for the building of the enterprise. A number of leading business men of the city are interested in the new industry. Among the promoters are Major C. V. Winfree, Wm. A. O'Brien, John D. Langhorne, W. C. Ivey, R. T. Watts, John D. Horsley, J. W. Watts, R. W. Crenshaw, F. L. Emory, J. Gordon Payne and R. J. Owen.

The Cotton Movement.

In his report of November 4 Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, shows that the amount of cotton brought into sight during the first sixty-five days of this season was 3,611,940 bales, an increase over same period of last season of 330,204 bales. The exports were 1,619,636 bales, an increase of 169,967 bales; takings by Northern spinners 347,762 bales, a decrease of 159,527; by Southern spinners 254,686 bales, an increase of 5817 bales.

Additional 5000-Spindle Mill.

The stockholders of the Clover Cotton Manufacturing Co., of Clover, S. C., held a called meeting last week to consider erecting an additional mill. It was definitely decided to build such an addition, and work on it will be commenced in a few weeks. The company will increase its capital stock in order to provide funds for the improvement, and an equipment of 5000 spindles is to be installed. The company's present factory is one of 6000 spindles, making 30s to 40s yarns. The company will increase its capital stock from \$100,000 to \$200,000 in order to provide the funds for this new mill, \$75,000 to be issued at once. A greater part of the new stock has already been subscribed.

To Manufacture Cotton-Mill Supplies.

The parties who purchased several weeks ago the Southern Card Clothing Co.'s factory at Charlotte, N. C., will continue to conduct the plant. A new company has been incorporated, known as the Southern Card Clothing & Reed Co., with capital stock of \$30,000, by Messrs. G. S. Hall, J. J. Adams and J. A. McMillan. The factory produces card clothing, loom reeds, napping machine, clothing and slasher combs.

Hosiery Mill Incorporates.

The Daisy Hosiery Mills, of Burlington, N. C., has been incorporated, with capital stock of \$29,000, and privilege of increasing to \$50,000. The company will continue the operation of the Daisy Mill, which has been in operation at Burlington for about a year, and some considerable enlargements are now under consideration. The incorporators are Messrs. S. M. Holt, A. C. Curtis and J. P. Faucette.

Textile Notes.

A movement is on foot at Mobile, Ala., for the establishment of a cotton-yarn mill.

Mr. James Brooks, of Molena, Ga., will establish a knitting mill, and has

commenced the erection of a two-story building to accommodate the necessary machinery.

Mr. J. C. Vance, of Chattanooga, Tenn., is endeavoring to perfect financial arrangements in New York, which will insure the establishment of a cotton mill at Chattanooga.

The Indian Head Cotton Mills, of Cordova, Ala., is preparing to make another shipment of sheeting to China. Ten cars will comprise this shipment, to go by way of San Francisco.

Mrs. Anna Shelton, of Dallas, Texas, has in contemplation the establishment of a cotton mill in Corsicana, in the same State. Mrs. Shelton owns an equipment for the manufacture of batting, which it is proposed to use.

Mr. C. R. Makepeace, of Providence, R. I., will prepare the plans and specifications for the proposed Southern mill of the New York Mills, of New York Mills, N. Y. This factory will be erected at Rockmart, Ga., as stated last week.

The stockholders of the Roswell Manufacturing Co., of Gainesville, Ga., held a meeting during the week. A dividend of \$16 per share, equal to 8 per cent. on the capital stock of \$262,000, was declared. Mr. S. Y. Stribling was re-elected president.

There is some talk of a cotton mill being erected at Kentwood, La. It is known that site has been offered for such an enterprise, while fuel, cheap labor and other advantages are obtainable. Possibly J. R. Kent is interested in the project.

The establishment of a cotton-rope factory is contemplated at Demopolis, Ala., and Mr. T. L. Sharpe is interested in the enterprise. Information is now being solicited regarding such manufacturing as referred to, and estimates on equipment of machinery are being considered.

Mr. Ellison A. Smyth, president of the Pelzer Manufacturing Co., of Pelzer, S. C., writes as follows regarding the new mill it has been rumored his company intended to build: "We have no intention at once of building another mill at Pelzer, and the report is without foundation as to any immediate undertaking of the work on mill No. 5."

The Colleton Cotton Mills, of Walterboro, S. C., which incorporated during last year, is now equipping its plant. The buildings are completed and the complement of machinery is now being placed in position, to include 5000 spindles and 160 looms, for the production of yarns, threads and white goods. The capital stock is \$100,000, and Mr. C. Shaffer is president of the enterprise.

Mr. Allen Jones, one of the incorporators of the Palmetto Cotton Mills, of Columbia, S. C., which filed its papers last week, writes that his company has commenced work on the erection of the necessary building for its enterprise. The structure proposed will have accommodation for 9000 spindles and 250 looms for the manufacture of fine cotton goods. Further particulars regarding the new factory will be announced later.

Messrs. Patterson & Busby, of Indianapolis, Ind., have selected a site near Memphis upon which they intend to establish an extensive hoop factory. The site is on Henning's Island, in Wolf river, formerly occupied by one of the saw mills of the Gladden Lumber Co., which moved to Arkansas and was purchased by Patterson & Busby and the machinery for the hoop factory ordered. The cutting machine is one of D. H. Burrell & Co.'s latest improved cutters to cut hoops on the rotary plan. The capacity will be a carload of hoops a day.

COTTONSEED OIL.

This department is open for the full and free discussion of trade topics and practical questions, and contributions are invited from men who are identified with this industry. Items of news are always acceptable.

The Market for Cottonseed Products.

New York, N. Y., November 9.

The cotton-oil market is dull, and practically unchanged. While many of the mills are well sold ahead as compared with previous seasons, production is reaching its full limit, with the result that while lard is a little firmer, cotton oil is perhaps easier, and is now offering more freely during the past few days. The position of the export trade is unsatisfactory, the continued strong freight market checking business. Off and prime oil arrivals have increased, the former meeting a good demand, while the latter is becoming more interesting to prospective buyers with regard to domestic users. The export outlet is for the present largely shut off, and, with rates maintained on so high a basis, 6s. 3d. to Marseilles, much improvement in that direction is not expected. Yet upward of 12,000 barrels of oil left this port for Marseilles and Mediterranean points during the week, a strong evidence that cotton oil is needed abroad and must in some instances be obtained, whatever the obstacles. Prime yellow is selling in lots at 23 cents, December shipments, and winter yellow and white 27½ to 28 cents. Prime Texas crude is offering at 13 to 13½ cents, while for Atlantic coast oil 13½ cents has been paid. Lard is quoted at Chicago, January delivery, at 5 cents. Tallow rules at 3½ cents here, both articles being firm, with an upward tendency. Western soap-makers have been active buyers, and while Western compounders and butterine makers are for the moment out of the market, owing to the heavy demand for pure lard, at the close of last week they secured several large lots. A feature of the market consists in the greater percentage of prime oil the mills are now turning out, thus indicating a better supply of this grade from now on. Shippers are interested in the off grades, and with more favoring ocean rates Europe stands ready to clean out the market of these grades on a fair basis of prices. Liverpool refined oil is steady at 15s. 6d. It is reported here that a \$2,000,000 cotton-oil plant will be erected in Philadelphia.

Cake and Meal.—There is a strong tone in the market, and with regard to the foreign consumption an increased demand. American cake in Liverpool is realizing £5 10s. and £5 17s. 6d. per ton, higher prices being expected. Fertilizer manufacturers throughout the South have bought freely of meal, especially the early output made from doubtful seed, prices varying according to location. There is nothing doing at this market, and prices are nominally quoted and unchanged.

Cottonseed-Oil Notes.

The cottonseed-oil mill at Uniontown, Ala., is now in full operation and doing good work. Mr. Andrew Rankin is general manager of the mill, which has a first-class modern outfit.

A charter was granted last week at Columbia, S. C., to the Saluda Oil Mill, of Piedmont, S. C. The officers of the company are T. G. Crymes, president; T. D. Sloan, manager, and W. N. Trowbridge, secretary and treasurer.

At a meeting of the directors of the American Cotton Oil Co. on the 1st inst. a dividend was declared of 3 per cent. on the common stock and 3 per cent. on the preferred, payable December 1. Mr.

Bradish Johnson was elected a director in place of Moses Frank, resigned.

Mr. J. S. Walker, of the Newport Cotton Oil Mill, at Newport, Ark., recently filled an order for 400 tons of cottonseed meal from Brunswick, Me. The Newport Mill is also making large shipments of cottonseed oil to Louisville, Ky.

The market for cottonseed products in Texas is steady at the late advance. Pine crude oil is quoted at 13 to 14 cents; prime refined summer yellow, 16 to 17 cents; cottonseed meal, \$12.50 to \$13; cottonseed cake, \$12 to \$12.50, and linters, 1 1/4 to 2 cents, all f. o. b. mill at interior points.

There is a fairly active movement in cottonseed products, but the exorbitant freight rates restricts business with foreign exporters. Considerable sales of off yellow oil have been made for future delivery, and it is likely that steamers will shortly be placed on several lines, which will improve the export trade. Cake and meal are moving slowly, and values a shade easier. Receivers' prices are as follows: Cottonseed, \$5 per ton of 2000 pounds delivered on river bank from New Orleans to Memphis for good sound seed; cottonseed meal jobbing per carload at depot, \$16.50 per short ton of 2000 pounds; for export per long ton of 2240 pounds f. o. b., \$18.50 to \$18.75, new crop; oilcake for export, \$18.50 to \$18.75, new crop, per long ton f. o. b.; crude cottonseed oil at wholesale or for shipment, strictly prime, new-crop oil, crude, 13 to 14 cents per gallon loose f. o. b. tanks here; in barrels, 15 to 16 cents; cottonseed hulls delivered per 100 pounds, according to location of mill, 7 1/2 to 10 cents; linters, according to style and staple—A, 2 1/4 cents; B, 2 1/2 cents; C, 2 3/4 cents; ashes, none; refined cottonseed oil, prime in barrels per gallon at wholesale or for shipment, 21 cents for export; off refined cottonseed oil, 19 1/2 to 20 cents for steamer.

The tanbark industry at Chattanooga, Tenn., and at adjacent points has shown considerable activity during the present year. Shipments have been made to tanneries at St. Louis, Chicago, Flintstone, Ga., Decatur, Ala., and other points. One firm at Chattanooga has shipped over \$65,000 worth of bark, and the demand for the coming year is likely to show a large increase. The peeling season commences about the first of March and lasts until the middle of May.

It is stated that the Business and Industrial Association of Charleston, W. Va., has offered liberal inducements to S. P. Jennings & Son for the establishment in that city of a handle factory. The capacity of the plant will be 2000 dozen handles per day, which amount will be turned out. The enterprise will give employment to twenty or thirty hands. The firm has already the machinery on the ground, and the work of erecting the building and placing the machinery will begin at once.

The Tensas basin levee board, at its meeting in Monroe, La., last week, sold all of its lands, amounting to over 700,000 acres, nearly all of which is well timbered, for \$130,000, of which \$30,000 is to be paid in cash on delivery of deeds. The property was purchased by a syndicate composed of the White & Freint Lumber Co., R. C. Luce & Sons, A. G. Hadenpyl, of Grand Rapids, Mich. Mr. J. D. Lacey, one of the members of the syndicate, states that the property was bought for the purpose of developing it by manufacturing the lumber, and to bring in immigration from the North for settlement upon the agricultural portion of the land.

LUMBER.

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

LUMBER MARKET REVIEWS.

Baltimore.

Office Manufacturers' Record, Baltimore, Md., November 10.

In certain avenues of the local lumber market there has been a better volume of trade during the past week, but the general market has been rather quiet. Receipts of North Carolina pine are not sufficient to overstock the market, and the supply at the moment is ample for the moderate demand existing. Air-dried lumber is moving more freely, and for flooring grades and box lumber there is a fair inquiry. Yardmen are not buying in large quantities, and planing mills are only purchasing to supply immediate necessities. There has been a fair local and foreign demand for kiln-dried North Carolina pine, and for the better grades there is a good inquiry from European sources. White pine is selling better, and prices are steady, without change in values. Cypress is quiet and steady. The movement in hardwoods is fair, and in the local market considerable material is moving, while prices are firm, with stocks light at milling points in West Virginia and Tennessee. The foreign demand for hardwoods shows no improvement, and under present conditions of the freight market shipments will continue light for some weeks to come. Orders, however, are being received, and small shipments are being made regularly. Prominent houses in the trade anticipate an active market when rates approach the normal.

Savannah.

[From our own Correspondent.] Savannah, Ga., November 7.

In the general trade of this port the lumber industry is now receiving a considerable volume, and the market during the week has shown a fairly active tone in most departments. The demand from the usual sources is more pronounced, and manufacturers and shippers anticipate a fair trade during the winter. At nearby Georgia ports there is an active movement in wood products, and shipments from Darien and Brunswick are fully up to the average. The list of values is steady for most grades. Minimum yard sizes are quoted at \$9.50; car sills, \$10; difficult sizes, \$11 to \$12; ship stock, \$15 to \$16.50; sawn crossties, \$8.25, and hewn crossties, 30 to 31 cents per tie. During the week the shipments by steamers were as follows: New York, 640,000 feet of lumber; Boston, 87,000 feet, and Baltimore, 378,000 feet. The schooner John R. Halliday cleared for New York with a cargo of 283,000 feet of pitch-pine lumber. Lumber and timber freights are steady, with a moderate offering of tonnage. Rates are quoted \$4.25 to \$5 for a range including Baltimore and Portland, Me. Charters were closed this week, Brunswick to Philadelphia with lumber at \$4.50 and free wharfage.

Jacksonville.

[From our own Correspondent.] Jacksonville, Fla., November 7.

The movement in lumber in this market during the month of October was much less than that of the preceding month, although the market showed considerable firmness throughout the entire list of values. There is at present a good inquiry for most grades of lumber, and from the number of vessels chartered and on passage to this port there is every indication of a good volume of business for the current month. During the month of Oc-

tober thirty-three steamships were entered and cleared, the total tonnage being 50,009. Eleven schooners were entered and fourteen were cleared, the tonnage of the twenty-five schooners amounting to 9337. The coastwise shipments of lumber for October were 7,649,861 feet, against 10,627,356 feet in September. Of yellow-pine lumber 7,133,837 was shipped, and of cypress lumber 516,024 feet; 1,073,000 shingles, 28,850 bundles of shingles and 24,750 crossties. The foreign shipments consisted of 379,707 feet of yellow-pine lumber. The various mills in this section are generally running on full time, and stocks are not accumulating, as the demand is brisk. The charters for the present month cover considerable tonnage, and there is a good demand for the better grades, with prices firm and a shade higher. During the past week the Clyde Line steamers carried out over 600,000 feet of lumber, 6000 crossties and 5600 bundles of shingles. Several sailing vessels cleared with over a million feet of lumber, all for Northern ports. Lumber freights continue firm, without change. Charters reported are as follows: Schooner A. R. Keene, 346 tons, from Jacksonville to New York with lumber at \$5; schooner Josephine, 347 tons, same voyage, dry, cypress at \$4.75.

Mobile.

[From our own Correspondent.]

Mobile, Ala., November 7.

The market for lumber and timber has ruled quiet during the past week, and shipments, both domestic and foreign, are lighter than usual. The excessive freight rates is restricting shipments in timber to the United Kingdom and Continent, and with stocks light the business is of light volume. Sawn timber, when placed upon the market, will bring 10 1/4 cents per cubic foot, while contracts are generally made at that figure. Hewn timber is in fair demand at 12 cents per cubic foot, basis of 100 cubic feet, average B1 good. The movement in lumber is fair, and mills, both here and at Mississippi and Alabama points, are generally busy with orders for prompt and future delivery. There is a fair demand for yellow pine from Central and South America and the West Indies. During the past week the schooner Smith cleared for Santiago de Cuba with a cargo of 361,591 feet of yellow-pine lumber. The following charters were reported this week: Schooner J. T. Campbell from Mobile to Kingston, Jamaica, with lumber at \$5.50; British bark Northern Empire, 950 tons, from Ship Island to Buenos Ayres with lumber at \$12.25, and a schooner, 385 tons, from Mobile to Laguayra with lumber at \$7 and port charges.

Lumber Notes.

The Pittsburg Chestnut Lumber Co. was organized at Morganton, W. Va., last week, with capital stock of \$20,000, by C. B. Dille, Edward G. Craig, John G. Stokes, Robert S. Donaldson and others.

The saw mills located at Bloomburg, Texas, and owned by Willis Whittaker, of Texarkana, Ark., were destroyed by fire on the 3d inst. The plant was valued at \$10,000, on which there was a partial insurance.

The planing mills of Hines Bros. at Seymour, Ky., together with a large quantity of lumber and building material, were destroyed by fire on the 1st inst. The loss is estimated at \$8000, with no insurance.

The large lumber mill at Prescott, Ark., owned and operated by the Ozark Lumber Co., was destroyed by fire on the 31st ult. The loss is estimated at \$30,000, with \$15,000 insurance. The mill had a daily capacity of 100,000 feet of lumber.

The Oneonta Lumber Co., of Mt. Sterling, Ky., was incorporated last week. The capital stock of the company is \$75,000. The incorporators are John H. Barrett, C. E. Stegmater, W. H. Shepherd and J. T. Phillips, of Wilkesbarre, Pennsylvania.

The Horne & Vaughan Lumber Co. was incorporated last week at Louisville, Ky. The incorporators are William L. Horne, of Nashville, and James H. Vaughan and Howard H. Harrison, of Mobile. The capital stock of the company is \$10,000.

James Bailey, one of the largest lumber dealers near Greenville, Tenn., has purchased a large tract of timber land near Wise Courthouse, Va., and will soon commence to work it up into lumber. Mr. Bailey will continue to operate his planing mills at Greenville, Tenn.

A fire broke out in the warehouse of the Chattanooga Boat Oar Co.'s factory at Chattanooga, Tenn., on the 1st inst. and destroyed 250,000 finished oars. The office building, with all the furniture, was also burned. The loss will reach \$25,000 to \$30,000; fully insured. The plant and machinery were saved. The company will rebuild at once.

Messrs. Enfield & Jetton, of Tampa, Fla., who operate an extensive variety works and are large lumber exporters, have secured 15,000 acres of land in Sumter county. They will at once place saw mills, dry-kilns and other appliances to manufacture lumber. The firm will also have a door, sash and blind factory in operation in Tampa about the 1st of December.

It is stated that the chair factory which the Commercial Club of Birmingham, Ala., has been endeavoring to have located in that city, has been secured. The factory will employ from seventy-five to 100 hands. About \$20,000 will be invested by the company, and it is expected that the capacity of the plant, which will turn out 500 chairs a day, will have to be increased in a short time.

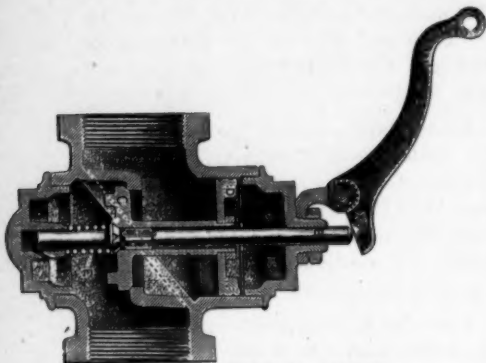
The National Association of Hardwood Lumber Dealers convened at Cincinnati, Ohio, on the 3d inst., with about 200 delegates present. The association adopted a system of uniform grades. There will be two grades of walnut lumber, first and second, the standard lengths to be eight, ten, twelve, fourteen and sixteen feet, odd lengths to be accepted by special agreement. There will be four grades of chestnut—first, second, common and culls. Inspection on first and second is to be the same as on ash. The classification on mahogany will be as follows: First and second X, 0 and shorts, lengths 2 to 20 feet, widths 3 inches and over, thickness 1 1/4, 1 1/2, 2, 2 1/2, 3 and 4 inches.

The Ensign-Oscamp Company was organized last week at Huntington, W. Va., for the purpose of selling timber and manufacturing it into lumber. The capital stock is \$100,000. The incorporators are Ely Ensign, J. W. Ensign, J. C. Dickey, of Huntington; W. S. P. Oscamp, of Cincinnati, and F. E. Canda, of New York. The company has bought the saw-mill plant of Smith, Thomas & Co. at Ocilla, Ga., together with about 11,000 acres of standing long-leaf yellow-pine timber. It has also bought about 9000 acres of standing timber adjacent to the above property from Capt. H. H. Tift, of Tifton, Ga., and about 3000 acres of standing timber from Mr. J. Fletcher. The company will operate the saw mill and planing mill and dry-kilns as they now stand. The capacity of the plant is about 25,000 feet of dimension timber per day, which will likely be increased.

MECHANICAL.

Automatic Balanced Whistle Valve.

The form of whistle valve shown herewith is claimed to effectually overcome the difficulties that steam users have experienced with the old style of valve. Under high steam pressures it is very difficult to operate the ordinary whistle valves and to keep them tight. In them



SECTIONAL VIEW.

the disc is not balanced, and as they close with the steam pressure, the continual pounding on the seat soon causes them to become leaky and troublesome.

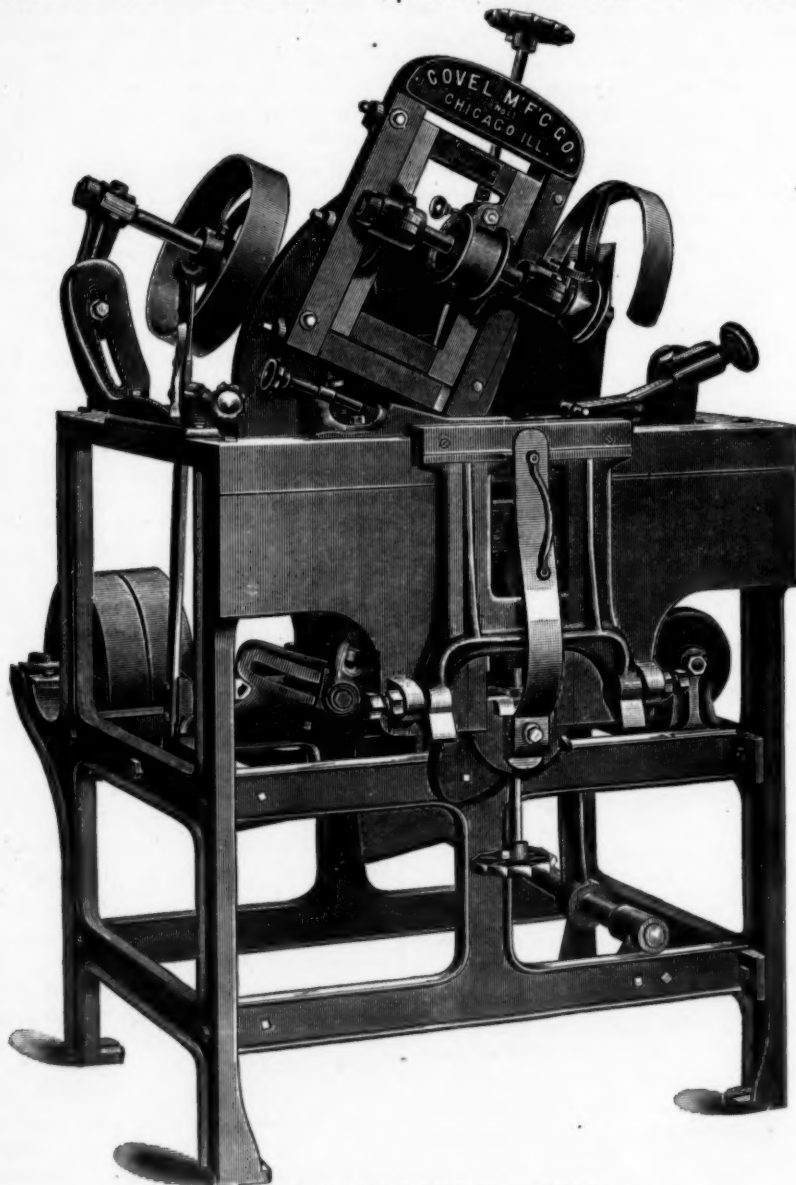
Recognizing the demand for a more durable and satisfactory valve, this one has been designed. This valve can be operated very easily under the highest steam pressure and kept tight. In this new form of valve the disc is balanced at all times,

slight pull on the lever X is sufficient to open the small auxiliary valve A. This admits steam through the opening in the center of stem of valve C to expansion chamber, where it acts upon the piston D, the area of which being larger than that of valve C, forces same from its seat, and allows the steam to pass through the valve. As long as the auxiliary valve A is held open, the main valve C will be kept off its seat, and the valve will be open. When the pull on the lever is released the pressure of the steam closes the auxiliary valve A, and the main valve C closes easily and without shock or jar, as the steam which is entrapped in the expansion chamber tends to cushion and retard its movement. There is very little wear on the two valve seats, and they can be easily reground by taking off cap at end.

These whistle valves are made of gun-metal composition, and are substantially and durably constructed. They are made in all sizes from one to three inches, inclusive, with screw, flange, or screw and flange ends, and are guaranteed for 175 pounds working pressure. For further particulars address the manufacturer, the Lunkenheimer Company, of Cincinnati, Ohio.

Automatic Band-Saw Sharpener.

This most complete sharpener for care of band saws is manufactured by the Covell Manufacturing Co., of Chicago,



AUTOMATIC BAND-SAW SHARPENER.

and when the valve is closing it does not hammer on the valve seat, but closes firmly and without any shock or jar. In opening, the steam pressure acts upon the valve disc in such a manner that the disc is raised from its seat almost automatically.

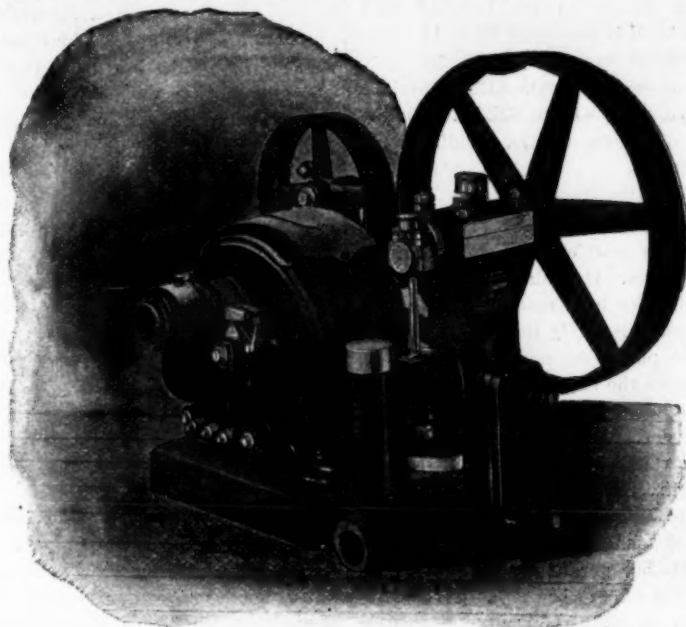
Reference to the sectional cut will show its operation. The steam pressure on top of disc C normally holds it to its seat. A

Ill. Although this machine has been made by said company for some time, it may be new to some of our readers, and therefore special attention is called to the improvements which this machine has in the way of convenience for operating. All the adjustments are in the front of the machine, so they can be operated very quickly, and the utmost care has been taken to make this sharpener strong and

durable for wear. For other information regarding this or other machinery or tools for the filing-room or for care of saws, write the manufacturer.

Electric Pump Outfit.

A neat and compact pumping outfit for house tank and similar service has recently been put out by Henry R. Worth-



ELECTRIC PUMP OUTFIT.

ington. The pump is of the type which is in use for a great variety of purposes, but is especially designed to supply the reservoir tanks of high office buildings and residences, where the pressure carried in the city mains, insufficient to elevate water above the lower stories, must be reinforced by pump pressure. The motor is connected to the pump entirely by belt, and, no cut gears intervening, the operation of the pump is noiseless.

The motor is of the C. A. type—a type designed and manufactured by the General Electric Co. to meet a demand for motors adapted to the direct application of power to small machines. It is built in capacities of two horse-power, one horse-power, one-half horse-power and one-eighth horse-power. The first three are wound for use on 115, 230 and 500-volt circuits, the one-eighth being wound for 115 volts only. They are light and compact, and occupy very little floor space, while they may be, by a single change in the position of the bearings, run in any position. The magnetic circuit is of laminated, instead of cast-iron; the armature of toothed laminations with coils made up and insulated before application. The motor is mounted upon the base of the pump, making the combination one of the most compact on the market. The motor is stopped and started by an automatic switch operated by a float on the water in the tank. These pump combinations are built for capacities of 200 and 500 gallons, as required.

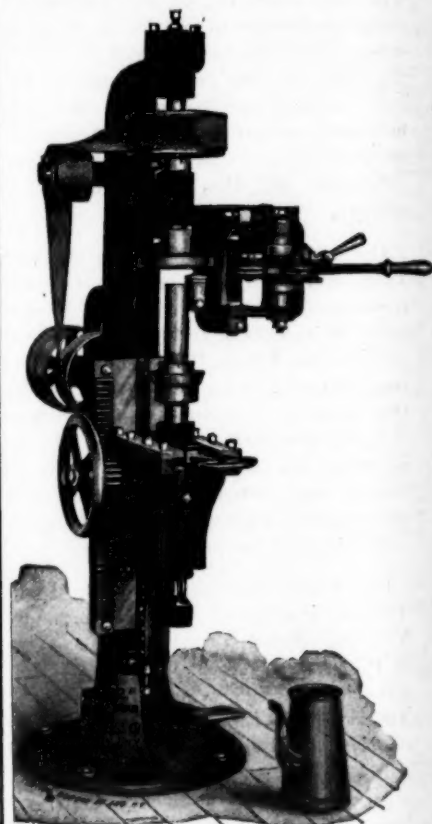
Special Double-Seaming Machine.

This double-seaming machine is built by the E. W. Bliss Co., 137 Plymouth street, Brooklyn, N. Y., and is designed for double seaming "flat bottoms" on tea kettles, coffee pots, pails, oil cans and similar goods in the tin and ironware lines, and also for other work of a similar nature.

The machine, as shown, is supplied with a sliding table and a special roller support for double-seaming rolls for use in connection with the small inside pressure-roll usually employed for seaming articles where the seam comes in the center, or at any given distance from the bottom. Sometimes, instead of using the small inside roll, as illustrated, a collapsible chuck

is used, which spreads out so as to fill along the edge of the bottom, when the article to be double seamed is carried up against the upper chuck, and folds together after the work is done, so as to permit of easily taking off the seamed article. This style of chuck is largely used for buckets, cups and other straight-sided articles, also for pitchers, kettles, coffee pots, teapots, etc.

The weight of the machine illustrated is about 600 pounds, but a larger size is made by the manufacturer, weighing about 1450 pounds. The adjustment for



DOUBLE-SEAMING MACHINE.

different heights of work is effected by means of the hand-wheel shown at the left of the machine.

According to a dispatch from Birmingham, Ala., a plan has been adopted for the reorganization of the Elyton Company, successor of the Elyton Land Co., founder of Birmingham, which went into the hands of a receiver in July last. The plan will be undertaken by the following committee: William Hull, Jr., cashier of the Hanover National Bank, New York; August W. Kelly, vice-president of the Union Trust Co., New York; Alexander D. Sisemore, vice-president of the Continental National Bank, New York, and Thomas G. Jones, ex-governor of Alabama.

CONSTRUCTION DEPARTMENT.

THE MANUFACTURERS' RECORD seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

*Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery Wanted."

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the Manufacturers' Record.

It often occurs that the organization of a new company in any town is not known by the postmaster, and hence letters addressed to the company are returned marked "not known." The Manufacturers' Record reports the first organization of all companies, and our readers, in seeking to get into communication with them, should be very careful in deciding how to address them, and even then they must expect the return of some letters, because of the lack of knowledge on the part of postmasters of all new companies. Criticisms and complaints are invited, as they will the better enable us to guard against errors.

The Creamery Package Manufacturing Co., G. F. Belknap, manager, of Chicago, Ill., will establish a stove, heading and box factory in the South. Location has not yet been decided upon, and propositions are being considered. Not less than 150 men will be employed at the start.

ALABAMA.

Alpha Mills—Lumber Plant.—A. D. Mills, of Montgomery, has purchased machinery and is erecting a saw mill of 15,000 feet capacity daily, dry-kilns and planing mills.

Ashville—Flour Mill.—Dr. J. B. Bass will build a flouring mill to cost \$25,000. E. J. Robinson is said also to be interested.

Atmore—Sugar Refinery.—There is talk of the erection of a sugar refinery, and Dr. R. H. Trimmall is said to be interested.

Birmingham—Contemplated Machinery Works.—A dispatch from Birmingham states that M. Oswald, of the Rambach (Germany) Steel Co., and Carl Spaeter, of Coblenz, Germany, have been investigating the iron and steel industries and resources of the Birmingham district. It is reported that these foreign capitalists contemplate erecting extensive machinery works.

Birmingham—Chair Factory.—The Commercial Club has signed contracts securing the establishment of the chair factory referred to lately. The factory will be valued at \$20,000 and employ from seventy-five to 100 hands.

Birmingham—Chair Factory.—The Mayers Chair Co. will remove its factory to Birmingham from Union City, Tenn., about January 1, 1899. Considerable new machinery will be installed.*

Birmingham—Wire, Rod and Nail Mill.—The Alabama Steel & Wire Co. has been incorporated, with \$2,000,000 capital stock and the following officers: President, E. T. Schuler, of Chicago; vice-president, C. E. Robinson, of Joliet; secretary and treasurer, G. H. Schuler, of Cleveland. These gentlemen are ex-officials of the Consolidated Steel & Wire Co. The company has let the contract to erect a wire, rod and wire-nail mill at Ensley City to the Garrett-Cromwell Engineering Co., and the mill is to be in

operation by June 1. The plant will have a capacity of 600 tons a day, with arrangements to increase the capacity to 900 tons in twenty-four hours. It will receive hot billets from the 1000-ton steel mill of the Alabama Steel & Shipbuilding Co., now building on ground adjacent to the rod-mill site. The output is to be sold to foreign markets exclusively.

Decatur—Electric-light Plant.—R. D. Smith, of Birmingham, is endeavoring to organize a company to construct an electric-light plant.

Decatur—Electric-light Plant.—R. D. Smith, of Birmingham, will organize a company in Decatur to build an electric-light plant.

Demopolis—Cotton Mill.—The establishment of a factory for producing cotton rope is contemplated. T. L. Sharpe can give information.*

Fort Payne—Steel Mill, etc.—E. N. Culom, of Birmingham, who lately purchased the Alabama Steel Works, as reported, has stated that the plant will be put in operation at an early date. J. M. Caldwell, of Birmingham, is also interested in the plant, and will go East to purchase machinery for a rolling mill which will be added to the steel mill.

Mobile—Cotton Mill.—Arrangements have been completed for the erection of a cotton-yarn mill. Further particulars later.

Mobile—Lumber Company.—Incorporated: The Horn & Vaughan Lumber Co., capital stock \$10,000, by William L. Horn, of Nashville, Tenn.; James H. Vaughan and Howard H. Harrison, of Mobile, to conduct a lumber and timber business.

Mobile—Cigar Factory.—F. S. McCoy's new cigar factory (noted last week) employs seven hands, making from 750 to 1000 cigars daily; plant is estimated at \$3000. Enlargements are expected to be made soon and fifteen to twenty hands engaged.

Montgomery—Telephone Exchange.—A franchise has been granted to W. F. Vandiver, F. M. Billing and associates for the establishment and maintenance of a telephone system.

Opelika—Flour Mill.—Charles E. Welborn, of New York, has purchased the Opelika Milling Co.'s flour mill for \$45,000.

Pratt City—Electric-light Plant.—J. M. Melghan & Co. are erecting an electric-light plant to cost \$30,000.

ARKANSAS.

Harrison—Zinc Mines.—Incorporated: The St. Louis & Arkansas Zinc Co., by James E. Clark, Jacob Stocks, William V. Wolcott, True S. Clark and George C. Campbell. The capital stock is \$30,000, all of which has been subscribed. James E. C. Clark is president.

Pine Bluff—Flour Mill, etc.—T. Y. Murphy, E. W. Freeman and P. P. Byrd have purchased the Pine Bluff mill and elevator, and will improve same.

Pine Bluff—Gas Plant.—The Pulaski Gas Light Co. has been purchased by Eastern capitalists, who will make needed improvements to the plant. H. Allen Odell, of New York city, will be president, and Josiah Quincy, of Boston, Mass., treasurer.

Prescott—Lumber Mills.—The Ozan Lumber Co. intends to rebuild at once its burned mills.

Wynne—Electric-light Plant and Water Works.—The date for opening bids on construction of the proposed water works has been postponed from November 8 to November 10; electric-light plant will also be considered. Plans are by Owen Ford, St. Louis, Mo. (office in Security Building). Address W. M. Kennedy, chairman of committee.*

FLORIDA.

Jacksonville—Printing Company.—Incorporated: The Carter & Russell Publishing Co., capital stock \$50,000, by W. R. Carter, Rufus A. Russell and W. P. Douglass.

Palatka—Shingle Mill.—L. H. Hart & Co. have commenced the erection of a shingle mill.

Tampa—Saw Mills and Timber Lands.—Edenfield & Jetton have secured 15,000 acres of timber land in Sumter county for development; they will erect saw mills, dry-kilns, etc., and cut the timber at once.

GEORGIA.

Atlanta—Wall Construction.—The county commissioners have awarded contract to

Gude & Walker, at \$3900, for the construction of the tower wall.

Brunswick—General Improvements.—The Brunswick Dock, City & Improvement Co. will probably make extensive improvements during the coming year.

Canton—Water Works.—The city will petition the legislature for authority to issue bonds for \$10,000 to construct water works, etc. Address "The Mayor."

Covington—Cotton Mill.—The erection of a cotton mill has been proposed, and Col. R. M. Mitchell, of Atlanta, Ga., has been mentioned in connection with the project.

Dahlonega—Gold Mines.—The Dahlonega Consolidated Gold Mining Co. has organized, with J. W. Adams, president; C. B. Paul, vice-president, and R. C. Thomson, secretary-treasurer, for the development of gold mines. Directors are J. W. Adams, Frank G. Thomson, C. B. Paul, R. C. Thomson, J. B. Rosenthal, Geo. H. Breyman, Frank R. Adams, W. A. Charters and H. D. Ingersoll. Address the secretary.

Gainesville—Gold Mines, Chlorination Plant, etc.—A New England syndicate has purchased 145 acres of gold-bearing lands near Gainesville (as stated last week). It is proposed to put in a plant at a cost of \$5000, consisting of ore bins, concentrators, mills, etc., for handling twenty tons of ore per twenty-four hours; mill building will be 25x50 feet in size. A chlorination plant, cost as yet undetermined, will also be installed later. For further information address A. W. Irvine.

Lexington—Cotton Mill.—Reports state that a company will probably be organized to build a cotton factory at a water-power on the Broad river, near Lexington. W. S. Witham, of Atlanta, was interested in a previous project for a cotton mill at Lexington and possibly can give information about the present one.

Macon—Lumber Mills.—Incorporated: The Standard Lumber Co., capital stock \$20,000, for the purpose of operating lumber mills, etc., by Monroe Phillips and George W. Hubbel.

Marletta—Sewerage System.—A committee has been appointed by the city council to investigate concerning the advisability of the construction of a sewerage system. A proposition to issue \$20,000 in bonds for a system has been discussed. Address "The Mayor."

Milledgeville—Electric-light Plant.—A committee has been appointed to investigate the advisability of the erection of a municipal electric-lighting plant. A system for fifty are and 1000 incandescent lights is proposed; H. H. Horne, mayor.

Molena—Knitting Mill.—James Brooks will establish a knitting mill; two-story building is now being erected.

Newnan—Cannery.—The Newnan Canning Factory Co. contemplates increasing the capacity of its cannery.

Ocala—Lumber Plant.—The Ensign-Oscamp Co. (reported last week at Huntington, W. Va., as incorporated) consists of Wm. S. P. Oscamp, of Cincinnati, Ohio, and the Ensign Manufacturing Co., of Huntington, W. Va., each owning half-interest in the corporation. The company has bought the Smith, Thomas & Co. saw mill at Ocala, Ga., including 11,000 acres of standing timber; also bought 9000 acres of timber and 3000 acres of timber located near Ocala, and will continue to operate the mills and cut the timber. The present saw mill, planing and dry-kilns have capacity daily for 25,000 feet of dimension timber, and this is to be increased. The capital stock is \$100,000, all to be fully paid in. Address Ensign-Oscamp Co., Huntington, W. Va.

Rockmart—Cotton Mill.—The New York Mills, of New York Mills, N. Y., has obtained the necessary land at Rockmart for a site for its proposed Southern mill. Beyond securing site, having surveys made and arranging for railroad facilities, little else has been done. Further particulars will be announced shortly; S. R. Campbell, treasurer.

Savannah—Electric-lighting Plant.—The Edison Electric Illuminating Co., which was incorporated recently by New York and Savannah parties, is applying to the city council for franchise to operate electric-lighting plant. The company has a capital stock of \$100,000. George J. Baldwin, of Savannah, Ga., can be addressed.

Sylvania—Turpentine Operations.—Bruno Pfeiffer will develop for turpentine, etc., a

tract of 10,000 acres of timber land near Sylvania.

Washington—Water Works.—The proposed water works, which have previously been mentioned, are again talked of. It is probable that the city council will favor issuing \$5000 in bonds for the purpose. Address "The Mayor."

KENTUCKY.

Central City—Telephone Line.—The Cumberland Telephone Co. contemplates extending its line from Central City to Greenville, a distance of seven miles.

Crayneville—Fluor-spar Mines.—The Fluor-spar Co., of St. Louis, Mo., is erecting a large mill and warehouse at Crayneville for grinding and storing fluor-spar; also is building warehouses at Marion and Aurora, Kentucky.

Franklin—Electric-light Plant.—Reports state that B. F. Gardner, of Bowling Green, Ky., is interested in the proposed electric-lighting plant for Franklin.

Fulton—Gas Works.—Charles Gregory, acting for the Fulton Gas Works, of which he is manager, has purchased franchise for gas system. A new plant will be erected at once.

Georgetown—Water Works.—The city will vote November 8 to issue \$12,000 in bonds for the construction of the proposed water works previously mentioned. Address N. H. Sinclair, mayor.

Glasgow—Ice Factory.—Harris & Bowen will build a seven-ton ice factory.

Greensburg—Telephone System.—The Green County Telephone Co. has been incorporated by E. T. Tucker and others.

Louisville—Improvement Company.—Incorporated: The Channa Improvement Co., capital stock \$100,000, by J. M. Hunter, of Warwick Villa; H. H. Schoening, W. E. Rapp, Claude Beckley and Curran Pope. Address the last-named at 113 West Chestnut street.

Mt. Sterling—Lumber Company.—Incorporated: The Ononta Lumber Co., capital stock \$75,000, by John D. Bassett and others.

Newport—Rolling Mill.—The Newport Rolling Mill Co. has commenced work on the erection of an additional sheet mill to cost \$100,000.

Owensboro—Strawboard Company.—Incorporated: The Southern Strawboard Co., capital stock \$50,000.

West Covington—Water Works.—The construction of water works is again being agitated. Address "The Mayor."

Winchester—Telephone System.—The city council has granted franchise for system to the East Tennessee Telephone Co.

LOUISIANA.

Baton Rouge—Brick Works.—The Baton Rouge Brickyard Co. will rebuild at once its burned plant.

Louisiana—Timber Lands.—J. W. Brown, of Memphis, Tenn., acting for a syndicate, has purchased 800,000 acres of land in the Tensas basin levee district for \$130,000. J. D. Lacey, the White & Friant Lumber Co., R. C. Luce & Sons and A. G. Hadenpyl, of Grand Rapids, Mich., compose the syndicate, and their intention is to develop the timber on the land, establish colonies, etc.

Westlake—Irrigation System.—Louis & Robertson, of Crowley, La., have contracts for the construction of an irrigation system for 4000 acres of land near Westlake.

MARYLAND.

Baltimore—Fertilizer Factory.—The Natural Fertilizer & Manufacturing Co. has been incorporated by William J. Brown, Henry C. Tunis, Peter G. Zouck, Frederick McL. Burbank and William J. Brown, Jr., with a proposed capital stock of \$20,000.

Baltimore—Gun Factory.—The Fox Gun Co. (previously incorporated) has established at Leadenhall and Stockholm streets a factory for the production of the shotgun invented by Ansley H. Fox. Those interested in the company are Ansley H. Fox, B. H. Richards, Sr., B. H. Richards, Jr., Jos. Pleasants and T. Tabb. The capital stock is \$15,000, and will be increased to \$50,000 in the near future.

Baltimore—Resort Improvements.—The Bay Ridge Electric Park & Steamboat Co. will expend about \$40,000 for the construction of electric towers, casino, midway plaisance, etc., at Bay Ridge.

Baltimore—Button Company.—The Alma

Button Co. has been incorporated by Herman Kerngood, George H. Pistel, David Oppenheimer, Isidore Lowenthal, Moses J. Oppenheimer and William T. Hanzicke, with a capital stock of \$20,000.

Baltimore—Ice Company.—Incorporated: The Distilled Water Ice Co., by Dr. Daniel R. Hoffman, Charles C. Hoffman, John W. Hoffman, John C. Hoffman and Frederick W. Feldner. The capital stock is \$50,000.

Baltimore—Publishing Company.—Incorporated: The Maine Publishing Co., by Messrs. John S. Crossy, James R. Hadley, Daniel McDougall, Robert H. Slaine and John Owings, with a proposed capital stock of \$2500.

Baltimore—Brewing Combine.—The Maryland Brewing Co. has been incorporated by R. B. Sperry, Charles H. Jones, Jr., John S. Price, Simon J. Block, A. C. Nelson, Albert Popp, Michael Ryan, William F. Banfield and M. C. Anthony. The capital stock is \$500,000 and the purpose is to combine Baltimore's twenty-one breweries. Messrs. Sperry, Jones & Co., Equitable Building, are counsel for the company.

Denton—Water Works.—The agitation for the establishment of water works has resulted in application being made for franchise by Harry A. Roe, Howard Melvin and Jas. H. Nichols. Probably a plant to cost \$8000 will be contracted for.

Elkton—Gold Mining.—The syndicate interested in the gold-bearing lands of Cecil county has purchased 3500 acres of land in that district, acting through its agent, J. D. West, Port Deposit, Md.

Mt. Washington—Water Works.—A company has been organized and purchased the water-works plant established by E. L. Germand, and proposes making improvements. The capital stock is \$25,000. Edward L. Germand is manager and Arnold E. Walters, treasurer.

MISSISSIPPI.

Hernando—Ice-cream Freezer.—Incorporated: The Instantaneous Ice Cream Freezer Co., with a capital stock of \$15,000, by W. M. Slack, W. H. Burton and B. G. West.

Lexington—Improvement Company.—Incorporated. The Lexington Improvement Co., for the purpose of engaging in such enterprises as will tend to the advancement and improvement of the city. Its capital stock is fixed at \$10,000, and the incorporators are Messrs. W. L. Jordon, J. S. Watson, W. O. Barrett and W. I. Pickens.

Vicksburg—Transportation.—Incorporated: The Vicksburg Transportation Co., with a capital of \$250,000, to build, own and operate steamboats, to construct and own wharves, derricks, elevators, etc. The incorporators are E. F. Hitchcock, Gus C. Meisner, D. J. Shlenker, Joseph Andrews, J. J. Donovan and W. A. Walburn.

MISSOURI.

Boonville—Shoe Factory.—Incorporated and now equipping a factory: The Sahn Shoe Manufacturing Co., capital stock \$43,000, by W. W. Trigg, W. M. Johnson, W. M. Lionberger and others.

Chillicothe—Buggy Company.—The Chillicothe Buggy & Top Co., capital stock \$2000, has been incorporated by M. A. Gould, W. H. Mansur, C. C. Gould and others.

Clarence—Electric-light Plant.—There is talk of the construction of electric-lighting plant. Address "The Mayor."

Gainesville—Flour Mill.—Wood & Reed will build a 40-barrel roller-process flour mill.

Independence—Electric-light Plant.—W. T. Felton, of Kansas City, Mo., is said to contemplate constructing electric-light plant in Independence.

Joplin—Lead and Zinc Mining.—Incorporated: The Emma Lead & Zinc Co., capital \$250,000, by John R. Bothwell, T. J. Steers, Norman Schurman and others.

Kansas City—Lock Company.—Incorporated: The Springless Lock Co., capital stock \$50,000, by J. J. Kendrick, H. B. Coleman, J. E. Dusbach and others.

Kansas City—Printing Machinery.—Incorporated: The Caps Brothers Special Printing Machinery Co., capital stock \$80,000, by John E. J. C., W. H. and R. Caps and James Scammon.

Sarcoile—Electric-light Plant.—The Sarcoile Electric Co. has been organized, it is reported, to build an electric-lighting plant.

Seneca—Water Works.—The construction of water works is being considered; probably J. E. Schreiner is interested.

St. Charles—Car Works.—The St. Charles Car Co. contemplates the erection of a new wheel foundry.

St. Louis—Shoe Factory.—The Hamilton-Brown Shoe Co. will build a new and larger factory than the present one.

St. Louis—Machine Works.—The St. Louis Iron and Machine Works will enlarge its plant, to consist of two additions 45x62 feet and 48x62 feet.

St. Louis—Realty.—The Ramona Heights Realty Co., capital \$20,000, has been incorporated by Phil Chew, James F. Ewing, William Bull and John J. Broderick.

St. Louis—Lead Company.—The Home Lead Co. has been incorporated, capital stock \$130,000, by R. M. Scruggs, Oliver Anderson and J. H. Wyeth.

St. Louis—Recrimping Apparatus.—Incorporated: The Recrimping Apparatus Co., capital stock \$30,000, by Louis Schaefer, E. W. Schaefer and J. H. A. Meyer.

NORTH CAROLINA.

Asheboro—Electric-light Plant.—The construction of an electric-lighting plant is under consideration. The Board of Commerce can give information.

Burlington—Knitting Mill.—S. M. Holt, J. P. Faucette and W. C. Curtis have incorporated the Daisy Hosiery Mill Co., with capital stock of \$2000 and privilege of increasing to \$50,000. The company will enlarge and operate a mill that has been established about a year.

Charlotte—Cotton-mill Supplies Factory.—G. S. Hall, J. J. Adams and J. A. McMillan have incorporated the Southern Card Clothing & Reed Co., with capital stock of \$30,000, and will continue the operation of the Southern Card Clothing Co.'s plant, recently purchased by one of the incorporators.

Conway—Warehouse Company.—Incorporated: The Hory Tobacco Warehouse Co., capital stock \$3000, by B. G. Collins, F. A. Burroughs, O. A. Spivey and others.

Lexington—Furniture Factory.—The American Furniture Co. has been incorporated, with capital stock of \$16,000, by J. N. Mendenhall and associates.

Lexington—Furniture Factory.—The American Furniture Co., incorporated last week, as reported, has purchased and will operate the Lexington Furniture Co.'s factory.

Murphy—Gold and Talc Mines.—The Valley River Mining Co. (Walter C. Lytle, of Charleston, S. C., manager,) is preparing to actively develop gold and talc deposits near Murphy; probably also fire-clay will be mined and brick works established.

Raleigh—Electric-light Plant.—The Raleigh Electric Co. is installing additional machinery in its plant.

SOUTH CAROLINA.

Charleston—Fertilizer Factory.—The Virginia-Carolina Chemical Co. has purchased the factory and business of the Chicora Fertilizer Co. at \$400,000. It is stated that the new owner will make extensive improvements and enlargements, including the erection of repair shops for the local plants.

Clover—Cotton Mill.—The rumor lately referred to regarding the erection of another mill by the Clover Cotton Manufacturing Co. has been followed by a definite decision regarding said mill. The company will erect a 5000-spindle mill at once, increasing its capital stock from \$100,000 to \$200,000 for the purpose; company's present mill has 6000 spindles for yarns, and new mill will also make yarns; M. L. Smith, treasurer.

Columbia—Cotton Mill.—The Palmetto Cotton Mills (reported last week as incorporated) expects to commence work this week on a building to accommodate 9000 spindles, and 250 looms for the manufacture of fine cotton goods. Allen Jones can be addressed.

Columbia—Lumber Mills.—There is talk of a company being organized to build lumber mills to succeed the Fowles Lumber Co., whose plant was burned recently. R. C. Shand will be able to give information if anything definite results from the proposition.

Columbia—Mattress Factory.—Col. W. T. Mixon has established a mattress factory of twenty capacity daily.

Walterboro—Cotton Mill.—The Colleton Cotton Mills (incorporated last year) is now equipping its mill with machinery and will begin operations by January 1; capital stock is \$100,000, and equipment proposed is 5000 spindles and 160 looms.

TENNESSEE.

Bristol—Iron Furnace.—The Embreeville (Tenn.) Iron Co. will blow in the Carnegie Furnace.

Chattanooga—Acetylene Gas Plants.—C. H. Caldwell, of Batavia, N. Y., and F. F. Smith, of Chattanooga, will promote acetylene gas manufacture.

Chattanooga—Manufacturing Company.—Incorporated: The Chattanooga Manufacturing Co., by W. H. Headrick, W. R. Pat-

ton, Wayne L. Headrick, W. G. M. Thomas and L. M. Thomas.

Chattanooga—Brewery.—The Chattanooga Brewing Co. has stated that its contemplated improvements for this fall amount to the putting in of a 200-ton ice machine and other minor improvements in the machinery department.

Clarksville—Snuff Factory.—It is announced that a snuff factory will be established. Plans for the building, to cost \$30,000, have been issued and contracts for its erection will be awarded at once. It is probable that B. F. McKeage, Jr., can give information.

Clarksville—Cigar Factory.—Rollin L. Ward, of Clarksville, and Arthur L. Ward (late of Kokomo, Ind.) will establish a cigar factory.

Clarksville—Iron Furnace.—The Clarksville Furnace Co. has been incorporated by M. H. Smith, H. W. Bruce, Cushman Quarrier, W. D. Hines, J. H. Ringgold and E. C. Lewis, its purpose being the operation of furnaces, etc.; the Gracey-Woodward furnace has been purchased.

Johnson City—Woodworking Factory.—W. P. Harris purchased building and machinery and is equipping a picker-stick factory.

Knoxville—Gold Mines.—The Lonsdale Mining Co. has been incorporated by John Dempster, John B. Hamilton, W. A. Conner, J. E. Fagan and T. S. Webb.

Memphis—Hoop Factory.—Patterson & Busby, of Indianapolis, Ind., will build a large hoop factory, capacity daily one carload, near Memphis.

TEXAS.

Beaumont—Rice Mills.—The Beaumont Rice and Grist Mills will probably double capacity.

Belton—Ice Factory.—Baker & Vickery have added an 18-ton ice machine to their plant. Contracts for all machinery have been awarded.

Corsicana—Cotton Mill.—Mrs. Anna Shelton, of Dallas, Texas, contemplates locating a cotton mill in Corsicana.

Dime Box—Cotton Gin.—H. Hannes will rebuild his burned cotton gin.

El Paso—Electric-light Plant.—Franchise for electric railway, light and power privileges has been granted to B. F. Hammett, Moses Dillon, J. J. Taylor, A. Courchesne, Thomas O'Keefe, Leigh Clark and others.

El Paso—Smelting Plant.—It is reported that there will be erected in El Paso a large smelting plant for the treatment of all classes of ores, of which large quantities are expected to enter El Paso from Texas, Mexico, New Mexico and other regions as the result of some important railroad extensions now under consideration.

McKinney—Water Works.—The city authorities have completed all arrangements ensuring the proposed water works, and will award contracts soon; J. M. Pearson, mayor.

Paris—Flour Mill.—A company has been organized to build a flouring mill.

San Antonio—Foundry and Machine Shop. Harry Gunther will build foundry and machine shop and establish general machinery warehouse (wholesale).*

Sonora—Ice Factory.—J. J. Wensley, of San Angelo, Texas, will erect in Sonora, it is reported, a six-ton ice factory.

Temple—Planing Mill.—J. H. Wallraven has purchased the interest of Ray in the planing mill of Ray & Wallraven. The new owner will refit the mills, put in new machinery and enlarge to double the present capacity.*

Terrell—Vehicle Factory, etc.—Incorporated: The Terrell Manufacturing Co., capital stock \$10,000, to manufacture wagons and road vehicles and to do all kind of wood and ironwork and blacksmithing, etc. Incorporators: George Mellersh, William H. Brewer, James A. Lowe, K. L. Polk and D. H. Kirby.

Tyler—Manufacturing Company.—Incorporated: The Johnson Douche Board Manufacturing Co., capital stock \$50,000, by D. P. Ewing, Thos. A. Johnson and F. G. Kirksey.

Weatherford—Cotton and Coal.—The Bradley Cotton & Coal Co. has been incorporated, with capital stock of \$10,000, by John J. Bradley, C. C. Stewart, of Weatherford, and William Busby, of Parsons, Kan.

VIRGINIA.

Buena Vista—Fire-clay Works.—The Buena Vista Fire-clay Co. will be reorganized and resume operating its mines and plant.

Chincoteague—Marine Railway.—Capt. W. C. Bunting is preparing to construct a marine railway.

Lynchburg—Cotton Mill.—A company will be organized at once, with a capital stock

of \$100,000, to erect the cotton-yarn mill recently reported as proposed. Those interested include C. V. Winfree, Wm. A. O'Brien, John D. Langhorne, W. C. Ivey, R. T. Watts and others. Address Major C. V. Winfree.

Manchester—Overall Factory.—Lewis Frank & Son will establish an overall factory; building has been secured, being furnished by the municipal authorities.

Mechanics River—Flour Mill.—The R. B. Willis Milling Co. has improved its flour mill, put in new machinery and contracted for new steel over-shot water-wheel, etc.

Pulaski City—Iron Furnaces, Coal Mines, etc.—The Carter Coal & Iron Co. has completed a loan of \$2,000,000, which amount, it is stated, will be used in meeting some obligations and in improving and extending its operations at its furnaces, iron and coal mines, etc. This company was organized recently and acquired the Dora Furnace, Falls Mining & Manufacturing Co., Tom's Creek Coal & Iron Co., Reed Island Iron Co., Virginia & Tennessee Coal & Iron Co. and George L. Carter & Co. George L. Carter, president, can be addressed.

Richmond—Burial Company.—Incorporated: The Peerman Burial Co., with capital stock of \$20,000, to conduct a general undertaking business; C. E. Belvin, president; Wm. H. Atkinson, secretary, and J. G. Peerman, manager.

Richmond—Paper and Pulp Mills.—The court has accepted the bid of Henry Lee Valentine (referred to last week) for the Haxall Mills property, the purchase price being \$135,000. Mr. Valentine acts for himself and associates, Messrs. R. R. Harrison and Fairfax Christian, who intend to remodel the mills and equip them for the manufacture of pulp and paper cardboard, etc., to employ from 300 to 400 men, and have a pay-roll of over \$2000 weekly. The plant has already a lot of valuable machinery in place, which is to be utilized for the new enterprise, including five over-shot wheels and five turbine wheels. A new building will be erected, 700 feet front, two stories high.

Roxbury—Flour Mill.—T. L. Walker has contracted for the erection of a flour mill complete.

Stafford County—Gold Mine.—It is reported that operations will be resumed at the Rappahannock gold mine. David Hirsch, of Fredericksburg, is interested.

Wise C. H.—Saw Mill.—James Bailey, of Greenville, Tenn., has purchased a tract of timber land near Wise, C. H., containing from 8,000,000 to 10,000,000 feet of timber, and will develop same. Saw and stave mills will be erected and about forty men employed.*

WEST VIRGINIA.

Charleston—Handle Factory.—S. P. Jennings & Son, of New Castle, Ind., have secured site in Charleston and will erect a handle factory of 2000 daily capacity, to employ thirty people.

Harper's Ferry—Electric-light Plant.—The Harper's Ferry Electric Light Co., with a subscribed capital of \$15,000, has been incorporated by John Lewis, of Gettysburg, Pa.; H. H. Rellly, of Hanover, Pa.; T. M. Connor, Wilbur Winters, George Marquet, J. Garland Hurst and B. D. Gibson. Address B. D. Gibson.

Keystone—Water Works.—The proposed water-works system will be contracted for in the near future, and probably about \$2500 will be expended. R. Elsinger, chairman committee, will receive bids.*

Sistersville—Gas and Electric-light Plant. The Sistersville Electric Light & Gas Co. (mentioned lately) has completed arrangements for the proposed enlargements to its plant; about \$10,000 has been expended for a 150-horse-power engine, 90-kilowatt dynamo, equal to 120 horse-power, and other electrical machinery.

BURNED.

Anita, Texas.—Robert S. Chew's cotton gin.

Baton Rouge, La.—Baton Rouge Brickyard Co.'s plant; loss \$10,000.

Bloomburg, Texas.—Whitaker Lumber Co.'s saw mill; loss \$7000.

Charlton, Md.—Samuel Cushman's grain elevator; loss \$10,000.

Chattanooga, Tenn.—The Chattanooga Boat Oar Co.'s office and stockhouse.

Clarksville, Texas.—J. R. Benningfield's cotton gin.

Culloden, Ga.—The Davis Hotel; loss \$6000.

Denison, Texas.—Coleman & Emery's cotton gin; loss \$3000.

Frankfort, Ky.—Joe T. Staten's furniture factory and warehouse.

Harwood, Texas.—G. M. Head's cotton gin. Harwood, Texas.—Head & Dawson's cotton gin; loss \$3000.
 Hot Springs, Ark.—The Josephine Hotel; loss \$5000.
 Johnson City, Tenn.—Biddle & Ellsworth's flouring mills; loss \$1500.
 Justin, Texas.—Butler & Coleman's cotton gin; loss \$2500.
 Peaster, Texas.—McCutchin & Craig's cotton gin; loss \$3500.
 Petersburg, Va.—J. P. Williamson's tobacco repriming factory; loss \$7500.
 Prescott, Ark.—Ozan Lumber Co.'s mill; loss \$30,000.
 Prescott, Ark.—Ozan Lumber Co.'s mill; loss \$30,000.
 Rockland, Texas.—William Cameron & Co.'s saw mill; loss \$50,000.
 Royse City, Texas.—W. P. George's cotton gin.
 Seymour, Ky.—Humes Bros.' planing mills; loss \$8000.
 St. Charles, Mo.—J. H. Merton Milling Co.'s flour mills; loss \$20,000.
 St. Martinville, La.—Hall & Burdin's saw mill; loss \$20,000.
 Troy, Ala.—Youngblood & Sons' bottling factory; loss \$3000.
 Washington, D. C.—The Capitol, damaged by gas explosion to the extent of \$100,000.
 Washington, Ga.—R. H. Callaway's cotton gin.
 Washington, Ga.—R. H. Callaway's cotton gin; loss \$600.
 Wellborne, Texas.—D. D. McCorpuodalls' cotton gin.

BUILDING NOTES.

Aurora, Ky.—Warehouse.—The Fluor-spar Co., of St. Louis, Mo., is erecting a warehouse at Aurora.
 Baltimore, Md.—Business House, etc.—George P. Renner will erect a business house, after plans by Geo. C. Haskell. Lawmason Riggs will erect a stable 50x48 feet, two and one-half stories, after plans by J. E. Sperry.
 Baltimore, Md.—Dwellings.—Parrish & Biddle will erect twenty two-story dwellings to cost \$12,000 for Charles L. Fulton; John Czarski will erect eleven two-story dwellings.
 Baltimore, Md.—Clubhouse.—Jos. E. Sperry will prepare plans and specifications for a \$20,000 clubhouse for the Maryland Bicycle Club; E. C. Wilson, president.
 Baltimore, Md.—Freight Sheds.—The Pennsylvania Railroad Co. contemplates the extension of its Bolton freight sheds at a cost of \$15,000; Geo. C. Wilkins, general agent.
 Baltimore, Md.—Church.—Gladfelter & Chambers have contract to erect a \$16,000 church building for Grace M. E. Church in Hampden.
 Baltimore, Md.—Warehouse.—George C. Haskell has issued plans for the erection of a warehouse.
 Baltimore, Md.—Warehouse.—M. S. Pacholder Co. will build a warehouse, five stories high, brick front.
 Baltimore, Md.—Steamboat Station.—The Baltimore Steam Packet Co. has had plans prepared for a passenger station and bridge to be constructed on Light street.
 Beaumont, Texas.—Church.—Bids have been asked on the construction of the new St. Mark's Episcopal Church building, to cost \$5000. Address "The Pastor."
 Charleston, S. C.—Auditorium.—The city is asking for plans on the proposed \$20,000 auditorium, noted last week. Plans will be received until November 15 for building; inside measurements 150x250 feet, seating capacity of 7500, stage 80 to 100 feet in the clear width and sixty to seventy-five feet deep; also to have committee-rooms, etc.; plans to be estimated, with a device for identification marked thereon, and architect's name, with device, submitted in separate envelope. To the best plan, exclusive of accepted plan, \$50 will be given, and \$25 to next best. Address the Auditorium Committee, care of South Carolina Loan & Trust Co.
 Columbia, S. C.—Cottages.—Granby Cotton Mills has let contract to John F. Grandy for the erection of fifty six-room cottages for mill operatives.
 El Paso, Texas.—Jail, etc.—Contract has been awarded to Buchanan & Powers, at \$6000, for the erection of jail and fire department building for the city.
 Fernandina, Fla.—City Building.—The city council is considering the erection of a city

building to cost \$10,000. Address "The Mayor."
 Florence, Ala.—Courthouse.—The county commissioners contemplate remodeling the county courthouse.

Ford, Ky.—Office Building.—Capt. J. M. Thomas is erecting an office building to cost \$12,000.
 Fredericksburg, Va.—Dwelling.—Henry Warden, of West Virginia, will build a dwelling near Fredericksburg.

Georgetown, Ky.—City Hall, etc.—The city council has been requested to authorize the issuance of bonds to the amount of \$12,000 for erection of a city hall and library building. Address "The Mayor."

Hampton, S. C.—Hotel, etc.—W. V. Gill, of Allendale, S. C., will erect a hotel and two stores in Hampton.

Huntsville, Ala.—Warehouse.—The Nashville, Chattanooga & St. Louis Railway has commenced the erection of a warehouse, to be 308x60 feet.

Kansas City, Mo.—Warehouse.—The Eagle Manufacturing Co. has accepted plans for a one-story warehouse 40x250 feet, brick front.

Louisville, Ky.—Warehouse.—The Ahrens & Ott Manufacturing Co. has obtained permit for proposed warehouse; structure to be four stories high, of brick, and cost \$10,000.

Marion, Ky.—Warehouse.—The Fluor-spar Co., of St. Louis, Mo., is erecting a warehouse at Marion.

Newport News, Va.—Church.—Second Baptist Church will be enlarged. Address Rev. Thos. J. MacKay.

Newport News, Va.—Theater.—The Columbian Investment Co. will rebuild its theater.

Newport News, Va.—Theater, etc.—Judge Sims, of Louisa county, will build an opera-house and stores; site purchased for \$19,000.

Norfolk, Va.—Concert Hall.—It is said that Steve Brodie, of New York city, has in contemplation the erection of a \$75,000 concert hall and theater in Norfolk.

Norfolk, Va.—Schools.—The city council has appropriated \$40,000 additional, making \$100,000 in all, for the construction of the school buildings previously reported. Bids were opened on these buildings (as stated last week), but no bids came within the appropriation, so that an additional amount had to be provided. New bids will be called for. Address L. Johnston, mayor.

Richmond, Va.—Warehouse.—B. D. Chalkley & Co. will erect a warehouse, as reported lately; structure will be two stories high, of brick, 150x150 feet, granolithic floors, 8000 pounds capacity, have scales, etc.

Richmond, Va.—Station.—Contract has been awarded to R. E. Elmore at \$3370 for the erection of a police station for the city.

Sheffield, Ala.—Depot.—Moore & Son, of Nashville, Tenn., have received contract to erect a \$10,000 depot at Sheffield.

Terrell, Texas.—Church.—The First M. E. Church South will erect a structure, as lately reported, to cost complete \$12,000. Plans have not yet been accepted. Address E. H. Cary, pastor.

Washington, D. C.—B. F. Judson has had plans prepared for four two-story dwellings, latrines, baths, ranges, etc.

Washington, D. C.—Fuller & Garrett have prepared plans and specifications for proposed school building; structure to be 106x135 feet, two stories high, have steam heat, ventilating system, etc., and cost about \$27,000. Mary B. Johnson will erect a two-story brick and stone office building to cost \$4000. John O. Johnson has had plans prepared for an apartment house, four stories, 45x140 feet, steam heat, gas and electric lighting, baths, gas ranges, open fireplaces, etc., and cost \$50,000.

RAILROAD CONSTRUCTION.

Railways.

Arcadia, La.—The Louisiana, North & South Railroad Co. has been incorporated to build a line from New Orleans to Fort Smith, Ark., by way of Arcadia and Hot Springs. It is stated that the entire length of the road will be 335 miles. A. L. Atkins, at Arcadia, is vice-president.

Beaumont, Texas.—It is stated that surveys have been completed on the line of the Gulf, Beaumont & Great Northern Railroad for a distance of sixty miles by James F. Weed, chief engineer. It is stated that contracts will soon be let for this distance. John H. Kirby, at Houston, Texas, is president of the company.

Centerville, Md.—The business men of Centerville are negotiating with the Queen Anne's Railroad Co. with the view of building a branch to Centerville. W. H. Bosley, of Baltimore, is president of the railroad company.

Fredericksburg, Va.—Hon. William A. Little, attorney for the Virginia, Fredericksburg & Western Railroad Co., confirms the report in the Manufacturers' Record that negotiations have been resumed with the English capitalists who became interested in the line before the war. He states no definite arrangements have been completed as yet for the resumption of construction work.

Galveston, Texas.—The promoters of the Galveston, Brazos & Southwestern Railroad, it is stated, are about to let contracts for tracklaying for the entire distance between Galveston and San Antonio. Grading has been in process on the route for several months. This road, it is understood, will form an extension of the Gulf & Interstate Railroad, which now terminates at Galveston. L. P. Featherstone, at Galveston, is secretary of the company.

Galveston, Texas.—L. J. Smith, of Kansas City, Mo., in a letter to the Manufacturers' Record, confirms the report that he has purchased the Galveston, La Porte & Houston Railroad, and states that it is the intention of the present owners to extend it further north. Mr. Smith is a railroad contractor and is located at 313 American Building, Kansas City, Mo.

Hamburg, Ark.—It is reported that contracts have been let for completing the Mississippi, Hamburg & Western Railroad from Hamburg to the Mississippi river, a distance of forty miles. J. M. Parker, at Hamburg, is general manager, and L. A. Cole, 100 William street, New York, president of the company.

Haylow, Ga.—Vice-President E. C. Long, of the Atlantic & Valdosta Railroad Co., writes the Manufacturers' Record that seventy-one miles of this road have been completed and contracts have been let for an extension westward to Valdosta and from Crawford, Fla., to Jacksonville, a distance of seventeen miles. The company calculates to have the road completed from Valdosta to Jacksonville by January 1.

Kansas City, Mo.—The promoters of the Jackson County Electric Railway, already referred to in the Manufacturers' Record, have chartered a company entitled the Jackson County Electric Railway Co., with \$70,000 capital. Among those interested are F. W. Sears and J. J. Hooper, of Kansas City, Missouri.

Lexington, Va.—It is stated that the plan of building an electric railroad from Lexington into the suburbs has been revived. John R. Williams, of Richmond, is interested in the matter.

Little Rock, Ark.—Grading has begun on the road which, it is stated, the Gould system is to construct from Little Rock along the Arkansas river valley to Fort Smith. W. B. Doddridge, at St. Louis, is general manager of the company.

Little Rock, Ark.—Several forces of graders are working on the extension of the Iron Mountain system between Little Rock and Fort Smith. General Manager Doddridge is quoted as saying it is to be constructed in 150 days. The estimated length of the line, according to the last survey, is 150 miles. Mr. Doddridge may be addressed at St. Louis, Mo. Wm. Conner, of St. Louis, it is stated, has secured the contract for building the entire line.

Mobile, Ala.—The Mobile & Bay Shore Railroad Co. has elected E. L. Russell, president; R. B. Taylor, vice-president, and Henry Tacon, secretary. This is the company which proposes constructing the railroad from a point on the Mobile & Ohio to Portersville, Ala., following the shore of the Mobile bay. Its capital is \$50,000. The proposed road will be twenty-seven miles long.

Palmer, W. Va.—It is reported that construction work has been resumed on the Holly River & Addison Railroad; about two miles of track have been laid and eighteen miles of grading completed. George A. Hechmer is general manager, at Palmer, W. Va. This is a branch of the Holly River Railroad, to be thirty-nine miles long.

Pen-Mar, Md.—The Blue Ridge Electric Railway Co. has appointed a committee to decide upon the route of this line. It is stated it will include Pen-Mar, Monterey, Buena Vista and Waynesboro, Pa. Simon P. Schott, at Baltimore, is one of the principal promoters of the enterprise.

Rockford, Ala.—Surveys have begun on the line of the Rockford & Kellyton road between the towns mentioned. The route proposed is about fourteen miles long. James W. Batson, of Rockford, is one of the promoters of the enterprise.

San Antonio, Texas.—D. Griffin Gunn, president of the Chicago, St. Louis & Texas Air Line Railway Co., informs the Manufacturers' Record that right of way has been secured for the line between Brownsville,

Texas, and San Antonio, and is prepared to negotiate with contractors for building it. The distance between the towns mentioned is 280 miles.

Savannah, Ga.—Vice-President John E. Egan, of the Central of Georgia Railway Co., confirms the report in the Manufacturers' Record that surveys have been made for a branch line in Alabama. He states, however, that no decision has been reached as to the construction of this line.

Shreveport, La.—Clarence Ellerbe, president of the Louisiana Construction Co., informs the Manufacturers' Record that contracts will be let on November 20 for the construction of eleven miles more of the Shreveport & Red River Valley Railroad. This line will be completed to Campt, La., by December 1. The offices of the construction company are at Shreveport.

St. Louis, Mo.—Authority has been asked to construct a railroad along what is known as the King's Highway in the suburbs, as well as adjacent thoroughfares. The company interested is entitled the Clifton Heights & Oakland Railroad Co.

Strasburg, Va.—The engineers surveying the railroad line from the West Virginia line to Winchester and Strasburg have nearly completed their work, it is reported. It is understood that the road is laid out from Bismark, W. Va., to Strasburg, on the Southern system, a distance of fifty miles. If built it will form a connection between the West Virginia Central & Pittsburg Railroad and the Southern. [The Bismark & Potomac Valley Railroad, in which a Philadelphia syndicate is interested, was noted in these columns last week. It is supposed to have a connection with the surveys referred to. C. M. Bolton is engineer in charge, and has been located temporarily at Winchester, Va.—Ed.]

Sumter, S. C.—It is stated that Messrs. Beckwith & Heady, of New York, engineers, have been examining the proposed route of the Sumter & Wateree Railroad, with the view of early construction work. The road will be sixteen miles long. J. D. Branding, at Sumter, is president of the company.

Thomas, Ala.—It is stated that the Pioneer Mining & Manufacturing Co. has let the contract for grading its proposed railroad to coal deposits near Thomas. The road will be four and one-half miles long.

Street Railways.

El Paso, Texas.—The city authorities have granted a franchise to the promoters of the proposed street railway. They include B. F. Hemmet, J. J. Taylor and M. Solomon. The franchise includes an electric-light plant and about four miles of trolley line.

Lynchburg, Va.—The Rivermont Street Railway Co. has obtained a franchise to build a branch in the city. H. P. Woodson is manager.

Lynchburg, Va.—The contract between the Lynchburg Street Railway Co. and the city authorities has been signed, and it is understood arrangements are now being made for early construction work. Randolph Harrison, of Lynchburg, represents the company.

Newport News, Va.—The Peninsula Railway Co., it is stated, is preparing to construct its proposed street railway immediately. The trolley system is to be used, and the route will be within the city limits. Among the promoters are John G. Livezey and L. P. Stearnes, of Newport News.

Pine Bluff, Ark.—It is stated that over half of the amount required to insure the building of the street railroad has been raised. It is reported that the Westinghouse Company, of Chicago, has agreed to take an interest in the road, and that it will construct it. S. W. Fordyce, of St. Louis, is one of the promoters.

Machinery, Proposals and Supplies Wanted.

Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The MANUFACTURERS' RECORD has received during the week the following particulars as to machinery that is wanted.

Bellows.—J. E. Pound, Live Oak, Fla., wants addresses of makers of hand bellows.
 Boiler and Engine.—J. A. Bailey, Greene-

ville, Tenn., wants to buy 20-horse-power boiler and engine. (See "Saw Mill" and "Woodworking Machinery.")

Boilers.—Bids will be opened November 26 for supplying boilers at Brooklyn (N. Y.) navy-yard. Specifications and blank forms furnished on application. For further particulars address Mordecai T. Endicott, chief of naval bureau, Washington, D. C.

Cans.—R. L. Bowen, Hastings, Fla., wants to buy one-gallon tin cans.

Cotton Compress.—Wanted—Bids on latest improved standard cotton compress. Address Box 276, Sumter, S. C.

Cotton Gin.—H. Hannes, Dime Box, Texas, wants to buy complete cotton gin.

Cotton-rope Machinery.—T. L. Sharpe, Demopolis, Ala., wants estimates on cost of making cotton rope; to work about two to three bales of cotton per twenty-four hours. Second-hand machinery will answer.

Dry-kiln.—A. W. Robinson & Co., Sharptown, Md., want to contract for dry-kiln for drying baskets.

Electrical Machinery.—Park Woolen Mills, Rossville, Ga., may buy an electric motor and fifty sewing machines.

Electric-light Plant.—Collins Co., Pennsboro, W. Va., is in the market for a small electric-light plant running 100 16-candle-power lights, with engine.

Electric-light Plant.—Bids for constructing water works and electric-light plant at Wynne, Ark., have been postponed from November 8 to 10. Address W. M. Kennedy, chairman committee.

Engine.—See "Electric-light Plant."

Engine.—Mayers Chair Co., Union City, Tenn., will be in the market for 50-horse-power engine.

Foundry Equipment.—Harry Gunther, San Antonio, Texas, needs a six-foot boring mill, steam hammer and other tools.

Furniture Machinery.—Mayers Chair Co., Union City, Tenn., will be in the market for chair machinery.

General Machinery.—Harry Gunther, San Antonio, Texas, will purchase a general line of machinery for warehouse.

Hardware.—Cordele Sash, Door & Lumber Co., Cordele, Ga., wants prices on sash weights f. o. b.; will order in ton and car-load lots.

Hearse.—George W. Abdell, Belle Haven, Va., wants to buy a hearse body or a hearse complete.

Marine Machinery.—See "Steamboat."

Printers' Supplies.—See "Bellows."

Railway Equipment.—Peacock's Iron Works, Selma, Ala., want three standard-gauge 25-ton locomotives and eight miles of 25-pound railroad iron.

Railway Equipment.—D. L. Risley, 211 South Tenth street, Philadelphia, Pa., wants 150 tons of 30-pound second-hand rails, with fish-plates, etc., to be delivered at Monck's Corner, S. C.

Railway Equipment.—Wanted—A. J. Merrill, Brunswick, Ga., wants locomotive for use on wooden rail, either narrow or standard-gauge; state condition, price and how soon can ship.

Saw Mill.—See "Woodworking Machinery."

Saw Mill.—J. A. Bailey, Greeneville, Tenn., wants to buy saw mill. (See "Boiler and Engine.")

Sewing Machines.—Park Woolen Mills, Rossville, Ga., may buy fifty sewing machines.

Steamboat.—Caldwell, care of Manufacturers' Record, Baltimore, wants to buy a tug-boat for piloting phosphate dredges and for other work; wants a tug of eighty to ninety feet hull, eighteen to nineteen and one-half feet beam, should tip to light draft when required seven or seven and one-half feet, having tank forward so that this can be done; to have compound or modern economic engine and boiler, with a minimum of 200 nominal horse-power.

Telephone Equipment.—E. B. Milhollen, Philomont, Va., will probably want telephone equipment (twelve or fifteen miles of wire and twelve phones).

Water Works.—See "Electric-light Plant."

Water Works.—R. Elfinger, chairman committee, Keystone, W. Va., will receive bids on the construction of water works, for which about \$2500 will be available.

Water Works.—Proposals for furnishing materials and constructing water works will be received until November 30. Specifications, form of proposals and blue prints furnished on application. System will require approximately frame pumping station; reservoir or pump well twenty-four feet diameter, twelve and one-half feet deep; double-acting deep-well pump of 150,000 gallons per twenty-four hours and lift of 450 feet; du-

plex, compound, high-service pump, with a capacity of 1,000,000 gallons in twenty-four hours against a head of 100 feet; two tubular boilers forty-eight inches diameter and sixteen feet long, with fitting and all pipe connections; feed-water pump and heater; steel standpipe 100x20 feet; forty-five hydrants; 4008, 704, 3240, 11,880 feet respectively of 12, 10, 8, 6-inch cast-iron pipe, with specials and valves. Address J. M. Pearson, mayor, McKinney, Texas.

Well-drilling.—R. E. L. Daniell, Pensacola, Fla., wants to contract for the boring of two artesian wells on plantation near Williamsburg, Ga.

Well-drilling Machinery.—Harper Daniell, Leary, Ga., desires correspondence from artesian-well machinery manufacturers.

Wooden Boxes.—J. P. Coon, Roanoke, Va., wants addresses of manufacturers of small wooden boxes.

Woodworking Machinery.—See "Chair Machinery."

Woodworking Machinery.—A. W. Robinson & Co., Sharptown, Md., will need shafting, pulleys, hangers, belting, saws, saw tables, drag saws, shingle saw, saw mill for short logs six feet long and from five to ten inches in diameter, planer, etc.

Woodworking Machinery.—J. A. Bailey, Greeneville, Tenn., wants to buy saw mill, edgers, trimmers, cut-offs, bolting machine, to carry timber from seven feet down to any length, and four-sided molder with trapezoidal cutter-heads.

General Industrial News.

The Pettit Iron Fence Co., of Philadelphia, is said to be preparing to move its plant to Ambler, Pa.

The Niles Tool Works, at Hamilton, Ohio, will enlarge its plant by a building 70x200 feet in dimensions.

The works of the National Starch Co., at Glen Cove, L. I., has been damaged by fire to the estimated amount of \$100,000.

The Johnson Forge Co., of Wilmington, Del., is reported as deciding to construct an addition to its plant 60x160 feet in size.

The C. H. Dutton Manufacturing Co., of Kalamazoo, Mich., will let contracts for an additional boiler shop to its present plant.

The Carnegie Steel Co., of Pittsburgh, Pa., has secured all its equipment for the new mill which it is erecting at Homestead, Pa.

It is stated that the Powers & Robinson foundry at Elkton, Md., is to be removed to Garwood, N. J. James F. Powers is the proprietor.

According to a press report, the Buhl Steel Co., of Sharon, Pa., has decided to issue \$250,000 in bonds to make improvements to its plant.

The Army Cycle Manufacturing Co., of Charleston, S. C., has added a nickel-plating plant to its works in order to meet the demands of its business.

Franklin G. Saylor, of Boston, Mass., is one of the promoters of the Saylor Rubber Co., formed with \$150,000 capital to do business at Portland, Maine.

John Cassidy, of Bangor, Maine, and others have formed the Onegunac Woolen Co., with \$75,000 capital, to manufacture woolen goods at Oldtown, Maine.

Charles D. Crane has made preparations for the construction of a factory building at Milwaukee, Wis., which will be 125x116 feet in dimensions and five stories high.

The Mineral Ridge Mining Co. has been formed by Wm. S. Darnell, of Camden, N. J., and others, with \$150,000 capital, to mine and deal in ores and minerals.

The Bertram-Bryan Co. has been formed for the purpose of making lithographs, with \$50,000 capital. James P. Bryan and Victor A. Bertram, of Beverly, N. J., are directors.

The Nashua Manufacturing Co., of Nashua, N. H., has determined to build an addition to its plant for cotton manufacturing which will be 100x200 feet in size and contain 600 looms.

R. E. Schouler, of North Adams, has decided to manufacture fancy worsteds at that place and is preparing to install machinery with the view of beginning operations on January 1.

The Union Drawn Steel Co., of Beaver Falls, Pa., it is stated, has secured property for the construction of an addition to its plant which will be 375 feet long and two stories high.

The Wright Spade & Shovel Co., of Anderson, Ind., it is stated, has secured the forge factory at Akron, Ohio, and will utilize it in manufacturing sheet iron for its Anderson plant.

The Lozier Manufacturing Co., of Westfield, Mass., will not increase its present fa-

cilities. The Thompsonville and Westfield bicycle plants will be consolidated at the Westfield factory.

The Riverside Furnace, of Steubenville, O., has been so successful that the owners have practically decided to replace it by a furnace of 600 tons capacity. The present plant has an output of 200 tons.

A St. Louis dispatch states that the Westinghouse Airbrake Co. has secured control of the American Airbrake Co. For several years the Westinghouse has leased the plant of the American Company.

A dispatch from Bennington Falls, Vt., is to the effect that Wm. Campbell has begun work on a woolen mill 60x100 feet. It will be operated by water-power and will contain \$40,000 worth of machinery.

The Mitchell-Parson Electric Co. has been organized, with \$150,000 capital, to manufacture electric-car appliances at Portland, Maine. George A. Popeland, of Revere, Mass., is one of the directors.

Another important addition to the industries in the vicinity of Pittsburgh will consist of extensions to the plant of Anderson Dupuy & Co., who contemplate erecting a bar mill and possibly a sheet mill.

A Boston dispatch states that H. L. Bowden, of that city, has decided to begin the manufacture of felt goods at Millbury, Mass., and has purchased the factory of the C. D. Morse Co. in the latter town.

A report from Minneapolis, Minn., says that the Thompson Wagon Factory, located in a suburb of that city, has been nearly destroyed by fire. Lindsay Brothers are the lessees. The loss is estimated at \$60,000.

The Fidelity International Co. has been organized, with \$2,000,000 capital, for the purpose of manufacturing and selling cotton-seed oil. It is understood that the company will have its offices in New York city.

A Toledo (Ohio) report is to the effect that the American Lamp Chimney Co., of that city, has let a contract for building its factory, which will cost \$20,000. It will receive an equipment of machinery valued at \$60,000.

The Marietta Boiler Works, of Marietta, Ohio, it is stated, intends enlarging its plant by the erection of two more buildings. It is rumored that steel may be manufactured in connection with the company's other business.

The Fluor-spar Co., of St. Louis, is erecting a mill and warehouse at Crayneville, Ky.; also warehouses at Marion and Aurora, Ky. The company claims to control the largest deposits of this material of all grades in the country.

A report is current in New York that another shipyard may be established on Staten Island in addition to the one recently referred to in the Manufacturers' Record. It is understood that Western parties contemplate locating it.

The American Pipe & Foundry Co., of Aniston, Ala., has secured the contract for supplying pipe for the Mobile Water Works. It is stated that about ninety miles will be laid and that it will be made at Bessemer and Aniston, Ala.

The Edward P. Allis Co., of Milwaukee, Wis., recently completed a blowing engine which, it is claimed, is the largest ever built in this country. It weighs 400 tons, and is to be placed in the Oliver & Snyder Steel Co.'s plant at Allegheny, Pa.

There is a strong possibility that the Carnegie Iron Furnace at Johnson City, Tenn., will soon be put-in blast and operated to its full capacity. The furnace is one of the largest in the South, and is now controlled by the Embreeville Iron Co.

The Monotuck Paper Mill, at Holyoke, Mass., has been purchased by J. K. Judd and others, who have formed a company which will utilize it also for manufacturing paper. The company is called the Monadnock. The mill is valued at \$250,000.

It is stated that the Embreeville Iron Co. is making arrangements to secure the ore business at Roan mountain, Tenn., also to operate the furnace at Johnson City, Tenn. Guy R. Johnson, general manager of the company, is conducting the negotiations.

There is a possibility that the White River Rolling Mill, also the Darnell Rolling Mill, at Muncie, Ind., will change hands and resume operations. N. V. Wagner, of Chicago, has endeavored to secure the former, and William Martin, of Pittsburgh, Pa., the latter.

It is stated that the Illinois Sugar Refining Co. has been authorized to build a \$250,000 factory at Peoria for the making of beet sugar. The capacity of the factory, it is stated, will be 350 tons daily. J. H. Ross and John Wilson are among the directors of the company.

Twenty-six of the largest manufacturers of white, black and gold-glazed stoneware are reported as interested in the combination recently formed in Ohio. B. F. Kent is president, and T. C. Robison, treasurer. The principal offices of the company are at Akron, Ohio.

A number of the largest mining companies in the vicinity of Houghton, Mich., are arranging to combine. The company is to have a capital of \$2,500,000, and will be entitled the Mass Consolidated Mining Co. It will control 3000 acres of ore beds and give employment to 500 men.

The glass factory being built at Toledo, O., by E. Ford, of Wyandotte, Mich., is about half completed. It has been decided to locate it in this city, and the plant will turn out 300,000 square feet of plate glass monthly. Machinery of a special design is being made for it by the owners.

It is announced that the Pittsburgh Reduction Co. has determined to add a new shop to its works at New Kensington, Pa. A building 75x70 feet will be required, in which will be installed six trains of 10-inch rollers of the Belgian system. It is stated that 500 horse-power will be required.

A Chicago dispatch is to the effect that arrangements are now being made to combine the linseed-oil plants of the country into a corporation, with \$17,500,000 capital. It is stated that the company will control the principal mills in the United States and will have its headquarters in Chicago.

The plant of the Minnesota Iron & Steel Co., near Minneapolis, may be enlarged by the addition of two open-hearth furnaces of fifteen tons capacity each. Electric power will probably be used in operating the addition to this plant, and will also be utilized to a certain extent in the present works of the company.

The locomotive works throughout the country report an extensive business. The Baldwin Locomotive Works, of Philadelphia, is now employing 5000 men, and is running on "double time." It is stated that the demand for locomotives is so great that the question of time is more important than the question of price.

A dispatch from Ellwood, Pa., is to the effect that the American Lamp & Brass Co., of Trenton, N. J., has decided to build a branch factory at that place. It is understood that contracts for the buildings are to be let in the near future. O. K. Clark and F. Clark, of the company, conducted the negotiations for the company.

A dispatch from Birmingham, Ala., announces that another steel company has been formed. It is incorporated as the Alabama Steel & Wire Co., with capital \$2,000,000. The president is E. T. Schuler, Chicago; secretary, G. H. Schuler, Cleveland. A contract has been let for the building of a mill having a capacity of 600 tons per day. It is stated.

Much interest is manifested in manufacturing circles over the report that Joseph Leiter, of Chicago, has purchased the Rhode Island Locomotive Works at Providence for \$1,000,000. It is reported that the plant will be used for manufacturing not only locomotives, but stationary engines under several patents owned by the original locomotive company.

A dispatch from Port Angeles, Washington, reports that Homer H. Swaney, of McKeesport, Pa., has organized a company to construct a steel plant in the former city, with \$500,000 capital. Those interested are Geo. Smith, Wm. Price and Brice Everett, all of McKeesport. An English syndicate, it is claimed, has also taken an interest in the venture.

Recent organizations in New Jersey are the Pope Process Co., of Harrison, N. J., which will manufacture coloring materials and other chemicals. It has a capital of \$50,000. Wm. F. Smith and Albert T. Smith are interested. The Gayner Glass Works is capitalized at \$50,000, to manufacture glass at Salem, N. J. John Gayner and Edward Gayner are directors of the company.

The Joseph Dixon Crucible Co., of Jersey City, N. J., has added an extension to its pencil factory 40x90 feet, three stories high. The same is driven by electric power from generator placed in the main factory. The company will also put down an artesian well several hundred feet in depth for a supply of water for factory use, and some time during 1899 other additions will be built to the plant.

Recent organizations in New Jersey are the Automatic Railroad Gate Co., with \$100,000 capital, and the Essex Iron Co. The former corporation will construct railroad gates, with offices at Elizabeth, N. J. Among those interested are Thomas H. Smith, of Elizabeth, and August Turner, of New York. The Essex Iron Co. will have a plant

at Plainfield, N. J. It is authorized to do a mining and smelting business, with \$50,000 capital. Walter E. Stewart, Jr., of Plainfield, and Hugh A. Bayne, 128 East Twenty-fourth street, are interested.

A prosperous Georgia industry is the tannery and collar factory of Bona Allen, located at Buford, in that State. Although the plant has been in operation but a few years, the capacity of the factory has been increased to an output of 1500 horse collars daily. It has become necessary to construct a branch of the Southern Railway system to this plant in order to furnish proper transportation facilities.

The Fred W. Wolf Co., of Chicago, has recently been awarded what is said to be the largest order ever placed for refrigerating machinery in the shape of a contract from Messrs. Armour & Co., of the same city, for three 400-ton Linde refrigerating machines, with a total capacity of 1200 tons refrigeration if run at their minimum speed of forty-three revolutions per minute. If operated at the maximum speed of fifty-three revolutions they develop refrigerating duty equal to the melting of 1500 tons of ice per day. This order of the Armour Company exceeds that of Swift & Co., of Chicago, placed with the Fred W. Wolf Co. in 1890 for sixteen 50-ton Linde ice machines, with a capacity of 800 tons a day, which at that time was considered the largest order ever placed with any firm for ice-making machines. The Fred W. Wolf Co. has installed 3500 Linde refrigerating machines, the orders coming from all parts of the globe. In connection with this order it may be stated that the Fred W. Wolf Co. has recently received what is said to be the largest order for ammonia fittings ever given. It was also given by Armour & Co., and amounts to \$28,500.

TRADE NOTES.

Steam Laundry.—Messrs. Pendleton & Jackson, of Winchester, Ky., have purchased their complete steam laundry outfit from the F. M. Watkins Co., of Cincinnati.

Drilling More Wells.—Messrs. Perry Andrews & Bro., of Atlanta, Ga., continue to complete successful contracts for drilling wells. Last week they finished a 480-foot well at Camden, S. C.

Wire Contract.—The Southwestern Texas Insane Asylum, at San Antonio, is nearing completion. The Low Wire Works Co., of Louisville, Ky., has the contract for supplying the heavy wire window-guards and elevator enclosures for same.

Electrical-Works Machinery.—An entire outfit of machinery of a large electrical works is being offered for sale by J. J. McCabe, 14 Dey street, New York city. A list of the machines included in the assortment is given in our advertising columns.

Diamond-drilling Equipment.—Mr. H. P. Simpson, of Scranton, Pa., has just added to his already large diamond-drill equipment a new "E" Sullivan diamond drill. His business has steadily increased from year to year until now thirteen drills are in operation.

Contract for Electric Plant.—The contract for the new electric-light plant for the Waukesha (Wis.) Malleable Iron Co. has been let to the Cloos Electrical Engineering Co., of Milwaukee. A Northern dynamo will be installed. The Cloos Company also manufactures the Cloos high potential switches.

Crate Factory For Sale.—An opportunity to buy a Georgia crate factory which netted over 50 per cent. profit during the past season is offered. The plant is offered at \$10,000, and reasons entirely foreign to the business are causing the disposal of the property. If further particulars are wanted address "Georgia," care of Manufacturers' Record.

Business Improving.—An unusual number of inquiries is reported by the Aultman Company, of Canton, Ohio, manufacturer of oil engines. These inquiries indicate to the Aultman Company that business is rapidly approaching a substantial basis, and from the character of improvements contemplated it is assumed that this feeling is held throughout the country.

Successful Acetylene-gas Plants.—W. A. Leary, of 913 I street N. W., Washington, D. C., referring to the gas machine made by the Mechanical Engineering Constructing Co., of New York, says: "I have placed in the new country seat of A. M. Lothrop at Falls Church, Va., a 'Troubitsky' acetylene-gas machine. I have a machine in my office and have on exhibition a burner giving 250 candle-power. This result has not been reached by any other machine on the

market. This company makes a specialty of lighting towns, villages and large buildings and plants. This machine is the only one in the United States which has successfully lighted a town through six miles of street mains. Quite an interest has been awakened by the results shown with this machine."

Shipping Gas Engines.—The Middletown Machine Co., of Middletown, Ohio, during the month of October shipped one eight-horse-power, one 15-horse-power, four 20-horse-power and one 35-horse-power Miami gas and gasoline engines to various parts of the country. The company's plant has been running fifteen hours a day to keep pace with orders for the Miami engines. A great demand for this engine exists throughout the South.

Steam Engine Business Improving.—Business looking better now, and hoping for a continuation of it, is the report that comes from the Fitchburg Steam Engine Co., of Fitchburg, Mass. This company is shipping an 800-horse-power engine this week to Nazareth, Pa., and a 200-horse-power engine to Pittston, Pa.; to Philadelphia will be shipped soon two 250-horse-power tandem compound engines; other orders are on hand for engines of larger and smaller sizes.

Architectural Iron Works Busy.—During the past month C. Hanika & Sons' Architectural Iron Works, Muncie, Ind., has been awarded the following contracts to inclose cemeteries: La Crew, Iowa, 2191 feet of iron fence; Leadville, Col., 860 feet; Fort Wayne, Ind., 600 feet, and 1000 feet at Lynchburg, Va. The firm is running its wire counter and office railing and grill department to its fullest capacity. The architectural iron department is reported running with a full complement of hands on several very large contracts which will take several months to finish.

Smead Heating and Ventilating.—The Peck-Hammond Co., of Cincinnati, Ohio, warm-air heating and ventilating engineers, report business very good indeed throughout the South. The company has recently closed for a very large contract for mechanical system of heating and ventilation to be placed in the State Normal and Industrial School at Greensboro, N. C. The former system of hot-water heating was taken out. Other contracts lately closed by the Peck-Hammond Co. for heating were the All Saints' P. E. Church, Richmond, Va.; hotels at Greenwood, S. C., and Alexandria, La.; schools at Norfolk, Va.; Schumpert Infirmary at Shreveport, La.; residence of Mr. S. K. Dick, Marietta, Ga.; churches at Prattville, Ala., Memphis, Tenn.; Cumberland Presbyterian Church at West Point, Miss., and Baptist church at Elberton, Ga., and convent at Jonesboro, Ark.

Pipe and Boiler Coverings.—The first investigation of pipe and boiler coverings, undertaken at the instance of the Mutual Boiler Insurance Co., had reference mainly to avoiding the danger of fire. At the time there were many substances used which were subject to slow carbonization, impairing their efficiency and, at the same time, exposing the works to the hazard of fire. The results of these investigations was the naming of several pipe and boiler coverings to which preference was given for general merit, and prominent among which was "Nonpareil Cork." This material is claimed by its maker to have exceptional qualities that attract all who investigate its merits, and that a trial of it is followed by a determination to give it preference whenever such a covering is required. The Nonpareil Cork Manufacturing Co., of West Broadway and Chambers street, New York city (successor to Stone & Durfee), is the manufacturer of this pipe covering, and for it claims durability, efficiency, economy, ease of application and lightness not equalled by any similar material on the market. Sheet cork insulation is generally recommended for cold-storage warehouses, refrigerator cars, ice plants, breweries, steamship, hotel and family ice-boxes, brine and ammonia tanks and wherever a perfect non-conductor of heat is required. Circulars relative to "Nonpareil Cork," letters from delighted users of it and statements of results obtained in competition may be had on application.

Cleansing and Preserving Steam Boilers.—Users of steam power are constantly on the outlook—at least wide-awake boiler users are—for any method or material for cleansing and preserving steam boilers that may be of more efficacy than the one they have been using. In this connection it is desired to call attention to "Litofuge," a compound for the cleansing and preservation of steam boilers. This material is purely vegetable,

It removes scale, prevents scale formation and galvanic action and does not injure the metal, according to the claims of its maker. In fact, this compound is regarded with the highest favor by some of the largest industrial establishments in this country. One of the largest plants of its kind in the world is the National Tube Works, of McKeesport, Pa., from whom the maker of "Litofuge" has received recently the following letter: "Referring to my letter of the 24th ult., I would say that on January 8 we introduced amounts of 'Litofuge,' according to directions, into our No. 4 battery of two boilers in No. 1 boiler-house, estimated at sixty-five horse-power each, and into No. 16 boiler, of No. 3 boiler-house, of ninety horse-power. On February 6, after four weeks' use of 'Litofuge,' the boilers were opened up for our regular internal inspection, both for the purpose of determining the usefulness of the compound and for our safety in the collection of scale and sediment on shell of boilers which may have been loosened off. I take pleasure in saying that we found the internal condition of the boilers much improved and a large amount of scale and sediment in them. The internal appearance of the boilers is more natural and does not show that iron redness as heretofore." "Litofuge" is made by the Litofuge Manufacturing Co., of 1710 Market street, Philadelphia, Pa.

Steam Towing Machines.—When the Navy Department purchased the steam colliers Saturn and Lebanon, the tugs Robert W. Wilmot, Wm. H. Brown and Gypsum King, the authorities found that these vessels were equipped with the Shaw & Speigle patent automatic steam towing machines. After trying these machines the Navy Department officials ordered a large number of the devices. Its distinctive feature is that by means of its driving and cushioning steam cylinders there is provided an elastic steam cushion, without which the hawser would be continually straining and frequently breaking. A manila hawser, although it is more elastic than the steel hawser, is very bulky to handle or to stow on a barge, and it also becomes very expensive on account of its ordinary wear and tear. A steel wire hawser will last apparently for an almost indefinite time without stranding or even straining, as appears from practical use. The resistance of the tow barge is borne entirely by the steam pressure in the cylinders. The wire hawser is wound on a drum that is driven by a pinion gear on the crankshaft of the engine, which meshes with the gear on the drumshaft. This machine has a regulating, reducing steam valve, in which the opening is increased or diminished, according as the strain on the hawser increases or diminishes. The action of the machine is as follows: In a seaway, as the vessel pays off, thus increasing the strain on the hawser, the drum begins to revolve and to pay out this hawser. This action opens the regulating valve and increases the steam pressure in the cylinders until the pressure is sufficient to equal the strain. Then, if the strain decreases on the hawser, the pressure in the cylinders will revolve the drum and wind the hawser in. In this way the machine is prevented from paying out the whole of the hawser, and only enough is paid out to relieve the extra and momentary strain on the hawser, and thus prevent its injury or its breaking. Prospective users of such a device as described should address for information the maker, the American Ship Windlass Co., Frank S. Manton, agent, Providence, R. I.

Electric Welding.—Having given considerable skillful attention to electric welding of selected and tested material in the construction of the vital parts of a bicycle, the Standard Tool Co. has issued a catalogue representing this line. Bicycle makers and other manufacturers who find use for such material should send for catalogue. Company's office is at Cleveland, Ohio.

The New Pennsylvania Railroad Cab Service at Washington, D. C.

The Pennsylvania Railroad Co. has just put into operation in connection with its Sixth Street Station, Washington, D. C., a complete and efficient cab service similar to that in operation at Broad Street Station, Philadelphia, and West Twenty-third Street Station, New York. The service is performed by brand-new rubber-tired coupes, victorias and omnibuses at very reasonable rates, and in the same prompt and satisfactory manner that has characterized the service in other cities. The vehicles will be found at the cab stand at the B Street entrance to the Washington Station, and may be engaged by the trip or by the hour.

PHOSPHATES.

Phosphate Markets.

Office Manufacturers' Record,
Baltimore, Md., November 10.

In the local phosphate market there is only a limited inquiry for rock, and brokers report a quiet market, with values steady. There is very little demand from out-of-town manufacturers, and those in the city are purchasing in small lots to meet immediate contracts. In mining sections there is a good development, and the market is generally quiet, without change in values. The market in South Carolina is steady as to values, and the coastwise demand is improving, shipments last week from Charleston being about 5000 tons. There is some foreign inquiry, and several vessels will take out cargoes during the present month. The movement in Florida rock from the ports in October was light, but for the present month shipments are expected to be much greater. Fernandina shipped in October 9970 tons, which will bring up the shipments from that port for ten months to 163,648 tons. Already this month eight vessels are chartered to load phosphate rock at Fernandina which will aggregate 26,000 tons. The shipments of Florida rock from Savannah for October amounted to 8068 tons. Port Tampa and Punta Gorda both expect a heavier business for the present month. The movement in Tennessee phosphate rock continues without interruption, and at the mines in the Mt. Pleasant section business is quite active, with a good domestic demand. There is also some foreign inquiry, which will likely result in actual business during November. Prices are generally firm, with quotations ranging from \$1.65 to \$2 f. o. b., according to guarantee. In the local market this week the schooner Agnes Manning was chartered to load phosphate rock at Charleston, S. C., for Cartaret, N. J., at \$1.90 a ton. New York charters reported were: Bark F. S. Hampshire, 992 tons, from Tampa to Baltimore with phosphate rock at \$1.80; schooner Mohegan, 979 tons, from Charlotte Harbor to Baltimore with phosphate rock on private terms; schooner George McFadden, 1017 tons, from the Gulf to Baltimore with phosphate rock on private terms, and schooner Star of the Sea, 803 tons, from Port Royal to Baltimore with phosphate rock on private terms.

Fertilizer Ingredients.

The market for ammoniates is quiet and firmer in tone, with limited offerings. The volume of business is not expanding, but there is fair trade for this period of the season. The Southern demand is light. Stocks in the West are firmly held, and for tankage Western packers are asking \$15 f. o. b. Chicago. The market for nitrate of soda is quiet, with values about steady. Sulphate of ammonia is firmer, with a better inquiry in Europe.

The following table represents the prices current at this date:

Sulphate of ammonia (gas)	\$2 60 @	—
Nitrate of soda	1 65 @	1 70
Blood	1 85 @	—
Hoof meal	1 70 @	—
Asotone (beef)	1 85 @	—
Asotone (pork)	1 85 @	—
Tankage (concentrated)	1 05 @	—
Tankage (6 and 20)	1 70 @	17 50
Fish (dry)	20 00 @	—
Fish (acid)	12 00 @	—

Phosphate and Fertilizer Notes.

The stockholders of the Chicora Fertilizer Co., of Charleston, met in that city on the 7th inst. and decided to accept the bid of \$140 per share made for its stock by the Virginia-Carolina Chemical Co. With the Chicora plant goes that of the Atlantic Company, the two concerns having an aggregate output of about 80,000 tons of fertilizer per year. The Virginia-Carolina Chemical Co. has plans for im-

proving its newly-acquired property, and is about to build repair shops near the Stone works.

Messrs. J. M. Lang & Co., of Savannah, Ga., report the shipments of Florida phosphate rock from that port during the month of October as follows: Steamship Longa for Stettin with 2205 tons; steamship Lidra for Rotterdam with 2463 tons, and steamship Buchtor for Hamburg with 3400 tons, making a total of 8068 tons.

The coastwise shipments of phosphate rock from the port of Charleston, S. C., during the week ending November 4 were as follows: Schooner James Boyce for New York with 1160 tons; schooner Mary Curtis for Richmond, Va., with 660 tons; schooner S. B. Marts for Baltimore with 820 tons, and schooner Susie H. Davidson with 854 tons. The total shipments of phosphate rock from Charleston to domestic ports from September 1 to November 4 amounted to 21,862 tons, against 13,192 tons for the corresponding period last year.

The shipments of phosphate rock from the port of Fernandina, Fla., for the month of October are reported as follows: Steamship Port Philip with 3220 tons for Hamburg; steamship Istock for Stettin with 4100 tons, and steamship Fram for Dantzig with 2650 tons; total, 9970 tons; previous shipments for the year 153,678, making a total for ten months to October 31 of 163,648 tons. The phosphate business for the present month indicates quite an increase in volume, and already eight vessels are chartered to carry about 26,000 tons of rock. The Norwegian steamer Fram sailed on the 3d inst., drawing twenty feet nine inches. The steamer Majestic is now due for 3800 tons of phosphate rock.

Winter Excursion Tickets on the Pennsylvania Railroad.

On November 1 the Pennsylvania Railroad Co. will place on sale at its principal ticket offices excursion tickets to all prominent winter resorts in New Jersey, Virginia, North and South Carolina, Georgia, Florida and Cuba. The tickets will be sold at the usual low rates, with the usual liberal return limits.

The magnificent facilities of the Pennsylvania Railroad, with its many connections, make this the favorite line for winter travel.

An illustrated book, descriptive of winter resorts, and giving routes of travel and rates for tickets, will be furnished free after November 1 on application to ticket agents.

Personally-Conducted Tours via Pennsylvania Railroad, Season of 1898-9.

The personally-conducted tourist system of the Pennsylvania Railroad Co. is the final evolution of absolute perfection in railway travel, the summit of the excellence of modern luxurious railway facilities.

For the season of '98 and '99 it has arranged for the following tours:

California.—Tour will leave New York, Philadelphia, Harrisburg, and Pittsburg, February 9. Nineteen days will be spent in California. The party will travel over the entire route by the "Golden Gate Special," the finest train that crosses the continent.

Florida.—Four tours to Jacksonville will leave New York and Philadelphia January 24, February 7 and 21, and March 7. The first three of these admit of a sojourn of two weeks in the "Flowery State." Tickets for the fourth tour will be good to return by regular trains until May 31, 1899.

Tickets for the above tours will be sold from all principal points on the Pennsylvania Railroad. For detailed itineraries, giving rates and full information, address Thos. E. Watt, passenger agent Western district, Pittsburg; B. Courlaender, Jr., passenger agent Baltimore district, Baltimore; C. Studds, passenger agent South-eastern district, Washington, or Geo. W. Boyd, assistant general passenger agent, Philadelphia.

FINANCIAL NEWS.

The Manufacturers' Record invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

Southern Bank Clearings.

The reports of monthly bank clearings as compiled by Bradstreet's show for the month of October the clearing-houses in the Southern and Southwestern States have a much greater increase than other sections of the country. The increase in the Southern States aggregates 12.6 per cent., and in the Southwestern 10 per cent. The next largest increase is in the West, which was 8½ per cent.

New Corporations.

The Myersville Savings Bank has been chartered to do business at Myersville, Md., with \$50,000 capital.

According to a dispatch from Gastonia, N. C., John H. Craig and others are making arrangements to open a new bank, with \$50,000 capital.

The Capital Insurance Co. has been organized at Jackson, Miss., by Wm. H. Watkins, of Jackson, and H. J. Froelich, of Chicago. It has a capital of \$100,000.

The National Capitol Building and Loan Association has been chartered at Alexandria, Va., by James O'Connor Roberts, of Washington, D. C., and others.

The Union Investment Co. has been incorporated to do business at Baltimore by Joseph P. Smith, Bertram S. Morrill, Charles Matt, Bernard H. Warthen and Theodore E. Dollard, with a proposed capital stock of \$25,000.

Messrs. T. Newnan, W. F. Doerflinger, B. Careras, B. Padrosa and O. W. Cole have applied for incorporation under the name of the Palmetto Investment Co., to do business at Brunswick, Ga., with a capital stock of \$2500, and privilege to increase to \$10,000.

The Real Estate Trust Co. has been organized at Baltimore with \$200,000 capital. J. Harry Ferguson, Jr., is president, and John S. Gittings is vice-president. The directors of the company are as follows: Hollins McKim, William Winchester, ex-Gov. Frank Brown, John S. Gittings, Charles Morris Howard, J. H. Ferguson, Jr., John A. Whitridge, Miles White, Jr., Charles J. Bonaparte, George C. Jenkins, Charles E. Rieman and Blanchard Randall.

New Securities.

The city of Tyler, Texas, has sold \$24,000 worth of 6 per cent. bonds at 101.

The city of Independence, Mo., has voted in favor of issuing \$75,000 worth of bonds for sewerage purposes. Address the mayor.

It is reported that the town council of Hagerstown, Md., may decide to issue bonds for electric lights and sewers. Address the mayor.

George Jurgens, of New Orleans, has purchased the issue of \$15,000 in 6 per cent. bonds for levee purposes, issued by the district of Buras, La.

The business men of Georgetown, Ky., are considering the idea of issuing \$12,000 in bonds for a new City Hall. The mayor will give further information.

Hon. W. A. Collier, mayor, will receive bids until December 1 for the proposed issue of \$300,000 in 4 per cent. refunding bonds of Atlanta, Ga.

A dispatch from Richmond, Ky., states that \$112,000 worth of Madison county 4 per cent. bonds have been sold to Wendell & Co., of Chicago, at 103.

The school district of Ganado, in Jack-

son county, Texas, will receive proposals until November 20 for \$2000 worth of 6 per cent. school bonds. The school board may be addressed at Ganado.

The county commissioners of Montgomery county, Maryland, will receive bids for \$25,000 worth of 4 per cent. road bonds until November 23. Address W. W. Welsh, clerk, at Rockville, Md.

Messrs. Mottu, DeWitt & Co., of Norfolk, Va., who recently purchased the issue of \$599,000 4 per cent. city bonds at 101.33, it is stated, have resold the entire issue at prices ranging from 103 to 103½.

The Carter Coal & Iron Co., of Pulaski City, W. Va., has arranged an issue of \$2,000,000 worth of 5 per cent. bonds, which are secured by a deed of trust upon the company's property. The issue will be used to refund present obligations and to make improvements.

There is a prospect that the bond issue of the Richmond, Petersburg & Carolina Railroad may be sold to Baltimore investors. It is understood that negotiations are now under way with the view of placing the entire issue with the Mercantile Trust & Deposit Co. of that city.

The stockholders of the Annapolis Short Line Railroad Co. have approved the decision of the directors to issue \$400,000 of bonds to pay off the floating debt of about \$300,000. The bonds will be a first mortgage on the line, and will bear 5 per cent. and run twenty-five years. The Mercantile Trust & Deposit Co. of Baltimore, it is stated, will buy \$325,000 of the issue.

Dividends and Interest.

The St. Bernard Coal Co., of Louisville, Ky., has declared a dividend of 1 per cent.

The First National Bank of Louisville, Ky., has declared a semi-annual dividend of 4 per cent.

The Alexandria Water Co., of Alexandria, Va., has declared a semi-annual dividend of \$2.50 per share.

Interest on bonds of the City Passenger Railway Co., of Baltimore, will be paid at the National Mechanics' Bank of that city.

The Canal & Claiborne Railroad Co. at New Orleans will pay its interest due November 1 at the Hibernia Bank at that city.

The American Cotton Oil Co. has declared a dividend of 3 per cent. on its common stock, and the same amount on its preferred stock.

Coupons of the consolidated first-mortgage bonds of the Central Railway Co., of Baltimore, due November 1, will be paid at the Citizens' National Bank.

Financial Notes.

D. M. Kennedy, president of the Northern Bank, of Clarksville, Tenn., has resigned. W. B. Anderson was selected as his successor.

The Union Bank of Knoxville, Tenn., has elected the following officers: W. H. Geers, president; Henry Hudson, vice-president; Oscar M. Tate, cashier.

The Jackson Building and Loan Association, of Jackson, Miss., has elected H. M. Taylor, president; R. F. McGill, vice-president, and John T. Buck, secretary.

At the annual meeting of the State Bankers' Association of West Virginia the following officers were elected for the ensuing year: President, E. M. Gilkeson, Parkersburg; vice-presidents, John Russell, Huntington; A. C. Jackson, Sistersville; R. C. Dazell, Wheeling, and C. S. Sands, Clarksburg; secretary and treasurer, J. F. Bedell, Charleston.

Lathe for Navy Yard.—The United States Navy Yard at New York has just received a large lathe from the Field Tool Co., of Lowell, Mass.

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Pennsylvania Railroad's Winter Excursion Route Book.

In pursuance of its annual custom, the Passenger Department of the Pennsylvania Railroad Co. has just issued an attractive and comprehensive book descriptive of the leading winter resorts of the East and South, and giving the rates and various routes and combinations of routes of travel. Like all the publications of the Pennsylvania Railroad Co., this "Winter Excursion Book" is a model of typographical and clerical work. It is bound in a handsome and artistic cover in colors, and contains much valuable information for winter tourists and travelers in general. It can be had free of charge at the principal ticket offices of the Pennsylvania Railroad Co., or will be sent postpaid upon application to Geo. W. Boyd, assistant general passenger agent, Broad Street Station, Philadelphia.

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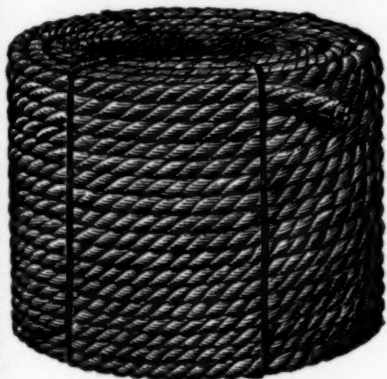
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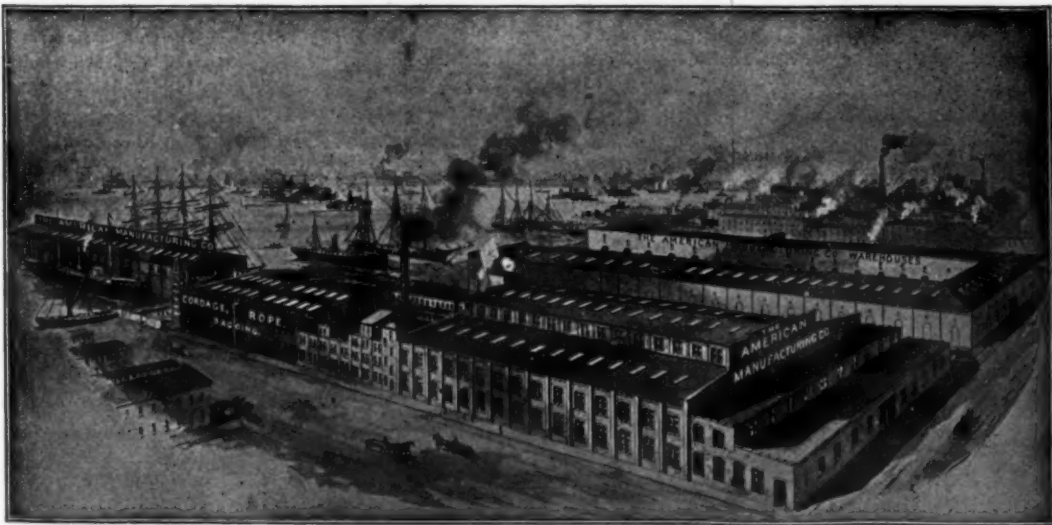
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